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# Accounting:

*A FOUNDATION*

Suggested responses to the  
drills and exercises

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## 1.0 Drills and exercises

Most chapters in the printed text are followed by a selection of drills and exercises to reinforce the main points. Learning to do financial accounting is in some respects like learning to speak a foreign language or learning to drive a car – certain responses or patterns of thought require practice and must become almost automatic. Appropriate drills, therefore, are often simple and repetitive.

The exercises, on the other hand, will consist of more open-ended questions, demanding a more thoughtful response.

### Note

The sample responses offered here on the website are for clarification only – that is, they are intended to show only the kind of response that the drills and exercises were intended to elicit. In comparing their own responses against the responses offered here, users should be aware:

- that their own responses may be better or more complete, and
- that in learning any subject, matters of principle are far more important than matters of detail.

It should hardly need saying that copying these responses instead of attempting the problems would be about as useless and boring a waste of time as could possibly be imagined.

## 2.1 A drill on the nature of a transaction

State whether or not each of the following events fits the double entry definition of a transaction, giving reasons. (Observe that not every interesting event is a transaction.)

1. a firm pays wages of £50 cash

a transaction – movement of money

2. a farmer buys a cow for £1 000

a transaction – movement of money

3. a farmer's cow gives birth to a calf worth £300

not a transaction – no movement of money or promise

4. a firm buys a machine for £10 000

a transaction – movement of money

5. goods worth £5 000 are destroyed in a fire

not a transaction – no movement of money or promise

6. a person finds a £10 note in the street

a transaction – movement of money

7. a person inherits gold and jewellery worth £25 000

not a transaction – no movement of money or promise

8. an uncle promises to give his nephew £20 000 in three years' time

debatable. There is certainly a promise to pay, moving between the uncle and the nephew, but the question is why the promise was given, and whether the uncle can or will change his mind. If this is a 'businesslike' promise then it could or even should, be recorded as a transaction. If it is just a vague statement of intention, then it should not be recorded as a transaction

9. a mother promises to pay the bank if her son fails to repay his overdraft  
debatable. There is certainly a promise moving from the mother to the bank, and there is little doubt that the bank could and would enforce the promise if the son did not repay the overdraft. On the other hand, the promise only comes into effect if/when the son fails to repay the overdraft, and until that time there is no way of knowing the value involved in the transaction.

Accountants would probably not record any transaction unless/until it became likely that the mother would have to pay the bank, and the amount payable could be estimated.

10. an oil company discovers oil reserves worth £10 billion  
not a transaction – no movement of money or promise

## 2.2 A drill to practise the accounting model of a business

For each of the following firms or industries, identify the major inputs and outputs, and outline the process that takes place inside the firm.

1. an oil refinery

input(s): crude oil, energy, labour, machinery

output(s): refined products

process: refining and separation

2. a chocolate factory

input(s): sugar, cocoa beans, labour, machinery, energy

output(s): chocolate bars, etc.

process: manufacturing

3. a flourmill

input(s): grain, energy, machinery, labour

output(s): flour

process: milling

4. a bakery

input(s): flour, yeast, labour, energy

output(s): bread, cakes

process: mixing and baking

5. a restaurant

input(s): raw food, labour, energy

output(s): meals and service

process: cooking and serving

**6. a ship-builder**

input(s): metal, labour, energy

output(s): ships

process: design and building

**7. a tailor**

input(s): cloth, thread, labour

output(s): clothes

process: cutting and sewing

**8. a shoe manufacturer**

input(s): leather, rubber, energy, labour

output(s): shoes

process: cutting, shaping, sewing and sticking together

**9. a shoe shop**

input(s): wholesale shoes from manufacturer

output(s): retail shoes on High Street

process: stock-holding and selling

Notice here that there is no physical process or change, although there is (or must be) some kind of economic change – why else would the shop be able to sell shoes for more than it paid to get them?

**10. a firm of lawyers or accountants**

input(s): labour

output(s): advice

process: transmission of information from provider to client

Notice here that the consumption of the input (labour) is exactly the same as the production of the output (advice). The difference is only in the point of view of the firm: labour is what it pays for; advice is what it sells.



**11. an orchestra**

input(s): labour, use of instruments

output(s): music

process: playing instruments

**12. a hospital**

input(s): drugs, labour, use of space

output(s): medical service

process: hard to identify or name any specific process by which (say) the skill of the doctor (input, paid for by the hospital) is transformed into the treatment of the patient (output, sold to the patient), but for accounting purposes some such process must be assumed.

**13. a private school**

input(s): labour, use of space

output(s): lessons

process: as with the hospital, it is hard to identify or name any specific process by which (say) the skill or knowledge of the teacher (input, paid for by the school) is transformed into the lesson (output, sold to the student), but for accounting purposes some such process must be assumed.

**14. a newspaper**

input(s): paper, labour, use of machinery

output(s): newspapers, access to readers (for advertisers)

process: writing, printing, distribution

Notice that modern newspapers do not in general sell news to readers. In effect their customers are advertisers, and what newspapers sell is access to their readers' attention.

**15. a hotel**

input(s): labour, energy, use of space

output(s): permission to use space

process: again it is difficult to name the process involved, but the accounting model requires us to conceive of the business as a process in which the various inputs (whatever the firm has to pay for) are consumed while outputs (whatever the firm has to sell) are created.

**16. an airline**

input(s): fuel, labour, use of aircraft

output(s): tickets/permission to travel

process: see answer 15

**17. a car hire company**

input(s): cars, labour

output(s): permission to use cars

process: see answer 15

**18. a market research company**

input(s): labour

output(s): information

process: see answer 15

**19. a software house**

input(s): labour

output(s): computer programs

process: see answer 15

**20. a second-hand furniture shop**

input(s): privately owned/dispersed used furniture

output(s): second-hand furniture

process: stock-holding and selling

## 2.3 An exercise on the accounting model of a business

Some less obvious cases. For each of the following firms or industries, identify the major inputs and outputs, and outline the process involved.

NOTE these questions are posed in order to generate a critical familiarity with the accounting model. Answers may vary from the suggestions given here without being incorrect. The object is to practise thinking about a business in a particular way, and especially to reinforce the idea that an input is what the business must pay for, and an output is what the business gets paid for.

### 1. a water company

input(s): reservoirs, pipes, labour

output(s): water

process: collection, purification and distribution

### 2. a timber-logging company

input(s): labour, use of tools

output(s): timber

process: cutting down and selling

### 3. a fishing company

input(s): boats, labour

output(s): fish

process: catching and selling fish

Notice the paradox that (in accounting terms) water is not an input to the water company, trees need not be an input to a logging company, and fish are not an input to a fishing company, because the company does not have to pay for them. The same is true in many industries involving the capture or appropriation of natural resources, although the state may intervene and allow such activities only under license – in which case, if the license must be paid for, permission to collect water/chop down trees/catch fish may well become an input to the relevant firm.

**4. a scientific research company**

input(s): labour

output(s): knowledge

process: organization and selling

**5. a coal mining company**

input(s): labour, machinery

output(s): coal

process: mining

**6. an arable farmer**

input(s): use of land, labour, seeds

output(s): crops

process: growing and harvesting crops

**7. a cattle farmer**

input(s): use of land, labour, animal feed

output(s): cattle

process: raising cattle

**8. a television station**

input(s): use of equipment and energy, bought-in programmes

output(s): advertising opportunities, permission to view

process: organization and selling

**9. an insurance company**

input(s): labour, claims (these are what an insurance company must pay for)

output(s): promises to pay claims

process: organization and selling

**10. a bank**

input(s): labour, permission to use depositors' money

output(s): permission to use bank's money

process: conversion of small deposits into larger loans

**11. an estate agency**

input(s): labour, advertising

output(s): advice, service to vendors

process: organization and marketing

**12. a betting shop**

input(s): winning tickets

output(s): tickets with a chance of winning

process: waiting for events

Notice that in a betting shop the normal business processes are inverted, both in time and in terms of prices paid: first the business take bets (it sells the chance to win) then it buys back any winning tickets at a higher price than the price at which it sold them.

## 2.4 An exercise on the nature of profit in the accounting model

Define profit in terms of the double entry model of a business, and explain why the calculation of profit should be such a difficult problem for accountants.

### Response

The double entry model of a business does not really attempt to *define* profit. However, in terms of the double entry model of a business:

1. profit can be described as the result of a process:

**PROFIT = value of OUTPUTS CREATED minus value of INPUTS CONSUMED**

Or alternatively:

2. the substance of profit can be described as:

**PROFIT = an increase in the overall value  
of money, promises and unconsumed inputs inside the business**

The calculation of profit is difficult for accountants because accountants record transactions between the business and the outside world, while profit depends on the processes of consumption and creation of value. These processes take place inside the business. They are not transactions between the business and the outside world, and are not therefore the primary focus of attention for accountants.

## **2.5 An exercise on the application of the accounting model of a business to non-commercial and other organisations**

For each of the organizations below, identify the major inputs and outputs if possible, and consider whether the double entry model of a business is fully applicable. If the model is not applicable, at what point does it fail? What legal or administrative changes would make the organization more conformable to the double entry model of a business? Would such changes be desirable?

Many of these questions are open-ended and potentially controversial. Their aim is not to make students seek out information, but to encourage them to probe and understand the reductive and simplistic nature of the accounting model.

### **1. the Roman Catholic Church**

As an organization the Church certainly has inputs – it must buy things and pay for them. It also receives money, but it does not appear to sell any output and it is not an avowedly profit-seeking enterprise. The model therefore is not fully applicable.

### **2. an amateur football club**

An amateur football club is not a profit-seeking enterprise, but if we imagine that the club sells membership, then it could be made to fit the accounting model of a business.

### **3. the International Olympic Committee**

The main business of the committee is to determine which city will host the Olympic games in any particular year. This would only fit the accounting model of a business if the committee were to put the right to hold the Olympic games up for auction every four years and sell it to the highest bidder.

#### 4. Oxfam

Oxfam is a charity. It buys things and therefore has inputs. It receives money from donors but apparently gives nothing in exchange. The model of a business therefore does not fully apply.

#### 5. Oxford University

The university charges fees to graduate and undergraduate students. To fit the model of a business it would have to be seen as a degree mill, buying and grinding up the time of its tutors and lecturers, to produce qualifications for its students.

#### 6. the United Nations

#### 7. the House of Commons

#### 8. the police force

#### 9. a national government

These are all bodies set up to promote the public good. They do not sell their outputs and therefore cannot be understood in terms of the model of a business.

Notice one important consequence: *efficiency* is the ratio of outputs created to inputs consumed. Since these bodies and others like them have no outputs, it follows that their efficiency cannot be measured. Under the influence of an obsession with business thinking, for bodies lower in the hierarchy of public service, such as the police force, this has stimulated the free invention of surrogate measures of output (arrests per policeman, response times, etc.).

#### 10. a regiment in the army

In pursuit of financial efficiency, it would be possible to set up a system in which the general in command of some strategic operation could invite tenders to execute the mission from a number of regiments, who would compete for the work. The ultimate military effectiveness of such a procedure may be doubted.



**11. the Stock Exchange**

The London Stock Exchange plc is a profit-seeking enterprise which sells the services necessary for an orderly investment market. It sets the rules and charges a fee for admission to the market, and sells trading systems and information.

**12. the Conservative Party****13. the Institute of Chartered Accountants****14. the accounting department of a large firm****15. a trade union**

Responses to these examples are left to the imagination and fact finding ability of the reader.

### 3.1 An exercise on the distinction between money and value

Comment on each of the statements or expressions below in the light of the distinction between money and value.

1. In the year 2000, Britain's Gross Domestic Product was €950 billion.

This is a statement about the value of goods and services produced in Britain.

2. US foreign aid amounts to \$28 billion per year.

This is a statement about value. The US government does not give away money to foreign aid recipients.

3. 'Celebrity wins million pound divorce settlement.'

This is almost certainly a statement about value. Divorce settlements normally include such things as ownership of houses and investments.

4. 'Win a £10 000 holiday.'

This is a statement about the value of the holiday.

5. '£10 million bank robbery.'

It is possible that a '£10 million bank robbery' could relate to the theft of money, since banks do store large quantities of money. It could, however, relate to the value of other things stolen from the bank (such as gold bars, bearer bonds, etc.).

6. '£4 million art theft.'

This is evidently a statement about value.

7. 'Russian tycoon R.A. is today \$7 billion richer after the sale of his shares in a major oil company.'

This is a statement about value – it is unlikely that the sale was concluded with the delivery of truckloads of cash. Note, however, the level of financial and economic illiteracy in the statement, which is quite typical of press comment on business affairs. A man who sells something, even when he sells it for money, does not thereby become any richer. He exchanges one thing, say shares, for another thing, say money, of equal value. His wealth therefore remains the same.

8. 'ABC plc announces £9 million profit.'

This is a statement about value. Profit need not be in the form of money. As we have seen from the accounting model, profit may also take the form of promises or unconsumed inputs.

### 3.2. Exercises on the scope and limitations of financial accounting

#### 1.

Identify at least three valuable resources whose existence cannot be recognized in the context of financial accounting, and explain why.

#### Response

Resources cannot be recognized in the context of financial accounting unless they have exchange value – that is, unless they can be bought or sold. Thus for example:

- a) the experience and expertise of a firm's staff cannot normally be recognized in a firm's accounts, despite its obvious value to the firm. This is not, as often suggested, because the value cannot be known, but because the experience and expertise does not belong to the firm and cannot be bought or sold. (If the staff were held as slaves and could be sold, or employed under restrictive contracts like footballers, their value could be determined quite easily and recognized in the accounts, as indeed it is with respect to footballers.)
- b) the right to vote in a general election is generally valuable but cannot be recognized in financial accounts unless the votes are bought or sold (which is usually illegal).
- c) fresh air is valuable but access to fresh air cannot be bought or sold, and therefore it can have no value in accounting.

Many other examples are possible.

**2.**

Explain how carbon trading brings environmental effects within the ambit of financial accounting.

**Response**

As currently advanced, schemes for carbon trading seem to involve each participating firm being given the right to emit a quantity of carbon dioxide. Firms which emit less than their permissible quantity have the right to sell the surplus to other firms which may wish to emit more than their permissible quantity.

Under such schemes, the right to emit carbon dioxide therefore becomes a tradeable commodity. It can be bought and sold, and therefore has exchange value, which can be recognized in financial accounts.

#### 4.1 A drill to practise the analysis of simple cash transactions

Analyze each of the following transactions as movements of equal value IN to and OUT of the business, as shown in the first example below.

1. a firm buys goods for £600 cash.

IN	purchases	£600	
OUT	cash		£600

2. a firm sells goods for £700 cash.

IN	cash	£700	
OUT	sales		£700

3. a building firm buys a cement-mixer for £5 000 cash.

IN	cement mixer	£5 000	
OUT	cash		£5 000

4. a firm pays wages £150 cash.

IN	work or labour	£150	
OUT	cash		£150

5. a firm pays £15 cash for window cleaning.

IN	window cleaning	£15	
OUT	cash		£15

6. a firm receives £250 rent, in cash.

IN	cash	£250	
OUT	permission to use building		£250

7. a clothes shop sells clothes for £70 cash.

IN	cash	£70	
OUT	sales		£70

8. a firm pays a manager's monthly salary £1 500 in cash.

IN	work or labour	£1 500	
OUT	cash		£1 500

9. a business pays £500 cash for advertising.

IN	benefit of advertising	£500	
OUT	cash		£500

10. a professional business collects £450 cash from a client for advice.

IN	cash	£450	
OUT	advice (or 'service' or 'sales', etc.)		£450

11. a hotel business charges a customer £100 cash for a room for the night.

IN	cash	£100	
OUT	permission to use room		£100

12. a business which runs buses collects 50p cash from a passenger for a ticket.

IN	cash	50p	
OUT	ticket (or 'permission to travel on bus')		50p

13. a business pays an insurance premium of £800 for the year, in cash.

IN	insurance (= right to make claims)	£800	
OUT	cash		£800

14. the business above (in Q13) cancels its insurance half-way through the year, and receives a refund of £400 in cash.

IN	cash	£400	
OUT	insurance		£400

15. a business pays £125 cash for a licence to trade in the market.

IN	licence	£125	
OUT	cash		£125

16. a business pays £300 cash to hire a machine for a week.

IN	permission to use machine	£300	
OUT	cash		£300

17. a business pays £25 cash as interest to a lender.

IN	permission to use money	£25	
OUT	cash		£25

18. a business pays £85 in cash for electricity.

IN	electricity	£85	
OUT	cash		£85

19. a business pays £350 in cash for use of the telephone.

IN	use of telephone	£350	
OUT	cash		£350

20. the business above (in Q19) was overcharged, and receives a cash refund of £50 from the telephone company.

IN	cash	£50	
OUT	use of telephone		£50

21. a business pays £1 500 cash for one of its employees to attend a management training course.

IN	training	£1 500	
OUT	cash		£1 500



22. a money-lending business receives £15 cash, interest from a borrower.

IN	cash	£15	
OUT	permission to use money		£15

23. a business buys goods for £500 cash on Monday, and sells the same goods for £750 cash on Tuesday.

Monday:

IN	purchases	£500	
OUT	cash		£500

Tuesday:

IN	cash	£750	
OUT	sales		£750

24. a firm of inventors receives royalties of £1 000 in cash, from a firm which uses one of their patented inventions.

IN	cash	£1 000	
OUT	permission to use invention		£1 000

25. a firm allows a 10% discount to regular customers. The firm sells goods with a list price of £200 to a regular customer, therefore receiving £180 in cash.

IN	cash	£180	
OUT	sales		£180

26. a firm pays a refund of £20 cash to a customer who has returned some unwanted goods previously bought from the firm.

IN	sales (or 'sales returns')	£20	
OUT	cash		£20

27. a firm returns some goods to the supplier, and receives a refund of £25 cash.

IN	cash	£25	
OUT	purchases (or 'purchase returns')		£25

28. a restaurant firm receives payment of £45 cash from a customer.

IN	cash	£45	
OUT	sales (or 'meal' etc.)		£45

29. a firm pays £36 cash for one year's membership of a trade association.

IN	membership of trade association	£36	
OUT	cash		£36

30. a firm pays £20 cash to a student for handing out advertising material.

IN	labour/benefit of advertising	£20	
OUT	cash		£20

## 4.2 A drill to practise understanding analyzed transactions

Describe in words each of the transactions below, which have already been analyzed in terms of the double entry system as an exchange of equal value.

1.	IN	cash	£80	
	OUT	sales		£80

firm sells goods for £80 cash

2.	IN	purchases	£100	
	OUT	cash		£100

firm buys goods for £100 cash

3.	IN	work or labour	£60	
	OUT	cash		£60

firm pays wages £60 cash

4.	IN	permission to use land or building	£450	
	OUT	cash		£450

firm pays rent £450 cash

5.	IN	sales (or 'sales returns')	£95	
	OUT	cash		£95

firm pays £95 cash refund on goods previously sold

6.	IN	cash	£18	
	OUT	purchases (or 'purchase returns')		£18

firm receives £18 cash refund on goods returned to supplier

7.	IN	permission to use money	£55	
	OUT	cash		£55

firm pays £55 interest in cash

8.	IN	use of telephone	£105	
	OUT	cash		£105

firm pays telephone bill £105 in cash

9.	IN	cash	£150	
	OUT	advice (or 'service' or 'sales')		£150

legal firm receives £150 cash payment from client

10.	IN	use of taxi	£12	
	OUT	cash		£12

firm pays taxi fare £12 cash

11.	IN	insurance	£180	
	OUT	cash		£180

firm pays £180 cash for insurance

12.	IN	cash	£290	
	OUT	lessons (or 'sales')		£290

school or training centre receives £290 cash for lessons

13.	IN	machinery	£150	
	OUT	cash		£150

firm buys machinery for £150 cash

14.	IN	membership	£48	
	OUT	cash		£48

firm pays £48 cash for membership of trade association

15.	IN	vehicle licence	£55	
	OUT	cash		£55

firm pays £55 cash for vehicle licence.

### 5.1 A drill to practise the analysis of transactions on credit

Analyze each of the following transactions as movements of equal value IN to and OUT of the business, as shown in the first example below.

1. (a) a firm buys goods on credit from A for £35.

IN	purchases	£35	
OUT	promise to A		£35

- (b) the firm pays A £35 cash.

IN	promise back from A	£35	
OUT	cash		£35

2. (a) a firm sells goods on credit to B for £70.

IN	promise from B	£70	
OUT	sales		£70

- (b) the firm receives £70 cash payment from B.

IN	cash	£70	
OUT	promise back to B		£70

3. (a) a firm sells goods on credit to C for £150.

IN	promise from C	£150	
OUT	sales		£150

- (b) the firm receives a payment of £150 cash from C.

IN	cash	£150	
OUT	promise back to C		£150

4. (a) a firm buys goods on credit from S for £360.

IN	purchases	£360	
OUT	promise to S		£360

(b) the firm makes a payment of £360 cash to S.

IN	promise back from S	£360	
OUT	cash		£360

5. (a) a firm sells goods on credit to C for £55.

IN	promise from C	£55	
OUT	sales		£55

(b) the firm receives a payment of £55 cash from C.

IN	cash	£55	
OUT	promise back to C		£55

6. (a) a firm buys goods on credit from a supplier for £50.

IN	purchases	£50	
OUT	promise to supplier		£50

(b) the firm pays the supplier £40 cash.

IN	promise back from supplier	£40	
OUT	cash		£40

(c) the firm pays the supplier a further £10 cash.

IN	promise back from supplier	£10	
OUT	cash		£10

7. (a) a firm sells goods on credit to a customer for £75.

IN	promise from customer	£75	
OUT	sales		£75

(b) the firm receives a payment of £50 cash from the customer.

IN	cash	£50	
OUT	promise back to customer		£50

(c) the firm receives a further payment of £25 cash from the customer.

IN	cash	£25	
OUT	promise back to customer		£25

8. a firm buys goods on credit for £250.

IN	purchases	£250	
OUT	promise to supplier		£250

9. a firm sells goods on credit for £375.

IN	promise from customer	£375	
OUT	sales		£375

10. a firm buys goods on account from a supplier for £85.

IN	purchases	£85	
OUT	promise to supplier		£85

11. a firm pays a supplier £45 on account.

IN	promise from supplier	£45	
OUT	cash		£45

12. a firm sells goods on account for £47.

IN	promise from customer	£47	
OUT	sales		£47



13. a firm receives a payment of £23 cash on account from a customer.

IN	cash	£23	
OUT	promise to customer		£23

14. a firm receives a payment of £17 cash from a debtor.

IN	cash	£17	
OUT	promise to debtor		£17

15. a firm pays £36 cash to a creditor.

IN	promise from creditor	£36	
OUT	cash		£36

## 5.2 A drill to practise further transactions involving promises

Note: this drill includes purchase returns and sales returns, where the original transaction was on credit, and the treatment of possible overpayments on account. Analyze each of the following transactions as movements of equal value IN to and OUT of the business.

1. (a) a firm buys goods on credit from a supplier for £15.

IN	purchases	£15	
OUT	promise to supplier		£15

- (b) the firm sends the entire consignment of goods back to the supplier.

IN	promise back from supplier	£15	
OUT	purchases		£15

2. (a) a firm sells goods on credit for £10.

IN	promise from customer	£10	
OUT	sales		£10

- (b) all of the goods involved in the sale above are returned by the customer.

IN	sales (or 'sales returns')	£10	
OUT	promise (back) to customer		£10

3. (a) a firm buys goods on credit for £65.

IN	purchases	£65	
OUT	promise to supplier		£65

- (b) the firm sends goods, which originally cost £45, back to the supplier.

IN	promise (back) from supplier	£45	
OUT	purchases		£45

4. (a) a firm sells goods on credit for £80.

IN	promise from customer	£80	
OUT	sales		£80

(b) half of the goods involved in the sale above are returned by the customer.

IN	sales (or 'sales returns')	£40	
OUT	promise back to customer		£40

5. (a) a firm buys goods on credit from a supplier for £95.

IN	purchases	£95	
OUT	promise to supplier		£95

(b) the firm pays the supplier £100 cash.

IN	promise from supplier	£100	
OUT	cash		£100

(c) the supplier repays £5 cash to the firm.

IN	cash	£5	
OUT	promise to supplier		£5

6. (a) a firm sells goods on credit to a customer for £40.

IN	promise from customer	£40	
OUT	sales		£40

(b) the firm receives a payment of £50 cash from the customer.

IN	cash	£50	
OUT	promise to customer		£50

(c) the firm repays £10 cash to the customer.

IN	promise from customer	£10	
OUT	cash		£10

7. (a) a firm buys goods on credit for £100.

IN	purchases	£100	
OUT	promise to supplier		£100

(b) the firm returns goods value £40 to the supplier.

IN	promise from supplier	£40	
OUT	purchases (or 'purchase returns')		£40

(c) the firm pays the supplier £50 cash.

IN	promise from supplier	£50	
OUT	cash		£50

8. (a) a firm sells goods on credit for £160.

IN	promise from customer	£160	
OUT	sales		£160

(b) £60 of the goods above are returned by the customer.

IN	sales (or 'sales returns')	£60	
OUT	promise to customer		£60

(c) the firm receives payment of £100 cash from the customer.

IN	cash	£100	
OUT	promise to customer		£100

9. (a) a firm buys goods on credit for £56.

IN	purchases	£56	
OUT	promise to supplier		£56

(b) the firm returns goods value £16 to the supplier.

IN	promise from supplier	£16	
OUT	purchases (or 'purchase returns')		£16

(c) the firm pays the supplier £56 cash.

IN	promise from supplier	£56	
OUT	cash		£56

(d) the firm receives £16 cash repayment from the supplier.

IN	cash	£16	
OUT	promise to supplier		£16

10. (a) a firm sells goods on credit for £227.

IN	promise from customer	£227	
OUT	sales		£227

(b) £27 of the goods above are returned by the customer.

IN	sales (or 'sales returns')	£27	
OUT	promise to customer		£27

(c) the firm receives payment of £100 cash from the customer.

IN	cash	£100	
OUT	promise to customer		£100

### 5.3 A drill to practise understanding analyzed transactions on credit

Describe in words each of the transactions below, which have already been analyzed in terms of the double entry system as an exchange of equal value.

1. (a)	IN	promise from A	£80	
	OUT	sales		£80

firm sells goods for £80 on credit

(b)	IN	cash	£80	
	OUT	promise to A		£80

firm receives £80 cash payment from A

2. (a)	IN	purchases	£60	
	OUT	promise to S		£60

firm buys goods for £60 on credit from S

(b)	IN	promise from S	£60	
	OUT	cash		£60

firm pays £60 cash to S

3. (a)	IN	purchases	£145	
	OUT	promise to X		£145

firm buys goods for £145 on credit from X

(b)	IN	promise from X	£45	
	OUT	purchases		£45

firm returns goods to X, value £45

(c)	IN	promise from X	£100	
	OUT	cash		£100

firm pays £100 cash to X

4. (a)

IN	promise from customer	£105	
OUT	sales		£105

firm sells goods on credit to customer, value £105

(b)

IN	sales	£65	
OUT	promise to customer		£65

firm receives goods back from customer, value £65

(c)

IN	cash	£40	
OUT	promise to customer		£40

firm receives £40 cash payment from customer

5. (a)

IN	purchases	£115	
OUT	promise to supplier		£115

firm buys goods on credit for £115

(b)

IN	promise from supplier	£125	
OUT	cash		£125

firm pays supplier £125 cash

(note that this appears to be an overpayment of £10)

(c)

IN	cash	£10	
OUT	promise to supplier		£10

firm receives repayment of £10 cash from supplier

6. (a)	IN	promise from customer	£57	
	OUT	sales		£57

firm sells goods on credit for £57

(b)	IN	cash	£77	
	OUT	promise to customer		£77

firm receives £77 cash payment from customer

(note the apparent overpayment)

(c)	IN	promise from customer	£20	
	OUT	cash		£20

firm returns the £20 cash overpayment to the customer



## 5.4 Exercises on debtors and creditors

### 1.

If you were determined to sabotage a firm, would you cause more damage by destroying the record of the firm's debtors, or the record of its creditors?

#### **Responses should include some of the following points**

A firm which buys largely on a cash basis would suffer little from the loss of its creditor records, and a firm which sells largely on a cash basis would suffer little from the loss of its debtor records.

In a firm which sells on credit, losing debtor records would mean losing customer records – that is, not only names and addresses and amounts owed, but also knowledge of previous buying patterns and preferences. The firm would thus find it difficult not only to collect the cash owed by debtors, but also to make new sales by targeting existing customers.

Creditors are suppliers, and a firm which lost creditor records would have to research all of its supply base. However, creditors, who are owed money and will want to be paid, will probably contact the firm, and much of the information lost may be easily recovered – although, of course, the firm would have little defence against the possibility of fraudulent claims by creditors.

**2.**

As an industrial spy, what useful information would you hope to gain from

- a) copying a firm's records of its debtors?
- b) copying a firm's records of its creditors?

**Responses should include some of the following points**

A firm in possession of a rival firm's debtor records has access to virtually all relevant information about the rival's customers and pricing policies. This would include not just names and addresses but also buying patterns and preferences, plus any special discounts or credit arrangements (notice that a firm's biggest customers are not necessarily its most profitable customers).

There is possibly less scope for malicious use of a rival's creditor records. Creditors are suppliers, and suppliers cannot be stolen from a rival in the same way as customers.

**3.**

A firm has bought goods on credit from A for £100, and sold goods on credit to B for £100.

Is it fair to say that the firm's £100 payable to A is fully covered (i.e. equalled in value) by its £100 receivable from B?

**Response**

£100 receivable from B is in the form of a promise, and promises may be broken. There are many reasons why B may fail to pay, or perhaps be unable to pay. By contrast, there are few reasons why A should give up his claim on the firm. Thus the £100 receivable and the £100 payable are not in fact of equal value: there is some doubt as to whether the receivable will actually be received, while there is little doubt that the payable will actually be demanded.

There is also the issue of differences in timing. £100 receivable tomorrow will not cover £100 payable today.

**4.**

‘Neither a debtor nor a creditor be.’

Is this good advice? (‘good’ for the individual, or ‘good’ for society at large?)

**Response**

Both debtors and creditors are to some extent in the power of other individuals.

Debtors may suffer if they cannot pay what they owe when the debt becomes payable. Creditors may suffer if they cannot recover what is owed to them. Both situations therefore involve a degree of risk for the individual.

On the other hand, borrowing, lending, and trading on credit do facilitate trading and the division of labour, and therefore probably contribute to the good of society at large.

**5 (a)**

If you had to choose, would you rather be a debtor or a creditor?

**Response**

As suggested in the response to Question 4, both debtors and creditors are to some extent in the power of other individuals. However, creditors are normally in the more powerful position.

In part, the answer may depend on the age of the individual and his or her closeness to death. Creditors hold promises of future payment – valuable to the individual only if he or she has a future in which payment can be received. Conversely, a debtor has given promises of future payment, and these may be of no consequence if the individual does not expect to live long enough to have to pay them.

**5 (b)**

What difference would it make to your choice if you lived in a time of rising prices (or of falling prices)?

**Response**

In times of rising prices, it is definitely preferable to be a debtor.

**6.**

‘In revolutionary politics, the class of debtors will aspire to dismantle the state, while the class of creditors will try to take it over.’

Is this theory plausible?

**Response**

This theory is at least plausible. Debtors who are overburdened by the weight of their obligations may well attempt to destroy the state and with it the law which requires them to fulfil their promises. On the other hand, creditors, especially those creditors who fear that the state may allow others to escape their obligations, may attempt to take over the state to use its power more effectively in defence of their rights.

(Students may wish to consider the classic case of Shays’ Rebellion in Massachusetts, following the American War of Independence.)

## 6.1 A drill to practise the analysis of bank and cheque transactions

Analyze each of the following transactions as movements of equal value IN to and OUT of the business.

1. a firm pays wages of £50 by cheque

IN	labour	£50	
OUT	bank (or promise to bank)		£50

2. a firm sells goods for £300, receiving payment by cheque

IN	bank (or promise from bank)	£300	
OUT	sales		£300

3. a firm buys goods for £450, paying by cheque

IN	purchases	£450	
OUT	bank (or promise to bank)		£450

4. a firm pays £75 cash into the bank

IN	bank (or promise from bank)	£75	
OUT	cash		£75

5. a firm takes £100 cash out of the bank

IN	cash	£100	
OUT	bank (or promise to bank)		£100

6. (a) a firm sells goods on credit to a customer for £35

IN	promise from customer	£35	
OUT	sales		£35

(b) the firm receives a payment of £20 by cheque from the customer

IN	bank (or promise from bank)	£20	
OUT	promise to customer		£20

(c) the firm receives a further payment of £15 in cash from the customer

IN	cash	£15	
OUT	promise to customer		£15

7. (a) a firm buys goods on credit for £650

IN	purchases	£650	
OUT	promise to supplier		£650

(b) the firm pays the supplier £650 by cheque

IN	promise from supplier	£650	
OUT	bank (or promise to bank)		£650

8. a firm pays a supplier £90 on account, paying by cheque

IN	promise from supplier	£90	
OUT	bank (or promise to bank)		£90

9. a firm receives payment of £24 by cheque from a debtor

IN	bank (or promise from bank)	£24	
OUT	promise back to debtor		£24

10. a firm receives and immediately pays an electricity bill of £260 by cheque

IN	electricity	£260	
OUT	bank (or promise to bank)		£260



11. a firm takes £30 cash out of the bank

IN	cash	£30	
OUT	bank (or promise to bank)		£30

12. a market trader delivers the day's takings, £500 cash, to the bank

IN	bank (or promise from bank)	£500	
OUT	cash		£500

13. a customer returns some goods, and the firm gives a refund of £150 by cheque

IN	sales	£150	
OUT	bank (or promise to bank)		£150

14. a firm pays £240 by cheque for a year's subscription to a trade journal

IN	subscription	£240	
OUT	bank (or promise to bank)		£240

15. a firm pays £600 by cheque to a newspaper, for placing an advertisement in the paper

IN	(benefit of) advertising	£600	
OUT	bank (or promise to bank)		£600

## 6.2 A drill to practise understanding analyzed bank transactions

Describe in words each of the transactions below, which have already been analyzed in terms of the double entry system as an exchange of equal value.

1.	IN	bank	£30	
	OUT	sales		£30

firm sells goods for £30, receiving payment by cheque

2.	IN	purchases	£40	
	OUT	bank		£40

firm buys goods for £40, paying by cheque

3.	IN	labour	£50	
	OUT	bank		£50

firm pays wages of £50 by cheque

4.	IN	bank	£56	
	OUT	cash		£56

firm pays £56 cash into the bank

5.	IN	promise from A	£37	
	OUT	bank		£37

firm pays £37 by cheque to A on account

6.	IN	cash	£100	
	OUT	bank		£100

firm takes £100 cash out of the bank

7.	IN	sales	£45	
	OUT	bank		£45

firm repays £45 by cheque, in respect of sales returned by customer

8.	IN	bank	£95	
	OUT	promise to B		£95

firm receives payment of £95 by cheque from B

9.	IN	rent (permission to use building)	£250	
	OUT	bank		£250

firm pays rent of £250 by cheque

10.	IN	bank	£78	
	OUT	purchases		£78

firm receives cheque for £78 in respect of goods returned to supplier

11.	IN	club membership	£110	
	OUT	bank		£110

firm pays £110 subscription to club, by cheque

12.	IN	machinery	£500	
	OUT	bank		£500

firm buys machinery for £500, paying by cheque

13.	IN	insurance	£64	
	OUT	bank		£64

firm pays insurance premium £64 by cheque

14.	IN	bank	£14	
	OUT	insurance		£14

firm receives refund of £14 by cheque, in respect of overpaid insurance premium

15.	IN	bank X	£400	
	OUT	bank Y		£400

firm transfers £400 from Bank Y to Bank X

### 6.3 Some exercises on aspects of banking

#### 1.

Why are bank promises considered to be almost as good as money, when your promises, or mine, are not?

#### Response

This question was posed to draw attention to the remarkable nature of banking, which is essentially the conversion of promises into money. Possible responses might include the following points:

- banks are generally better known than individuals, and promises from known entities are more acceptable than promises from unknown entities
- it is commonly assumed that banks are monitored and highly regulated, and are therefore less likely to issue promises which they cannot pay. A firm which buys largely on a cash basis would suffer little from the loss of its creditor records, and a firm which sells largely on a cash basis would suffer little from the loss of its debtor records.

**2.**

Most of the large modern banks were founded in the 19th century and established themselves in grand, impressive local buildings. Some recent banks have been established with only an internet presence. Comment on the change in customer mentality that has allowed this development.

**Response**

This question draws attention to the extraordinary degree of trust involved in banking operations. Before such trust was widespread in the community, it was necessary for banks to prove that they could be trusted with deposits from the general public, and one way of doing this was to have a visible and imposing local presence.

It is a testament to public trust or gullibility – or to the effectiveness of banking regulation and confidence in legal process – that many members of the public seem quite happy to give their money into the hands of people whom they have never seen, and whose whereabouts may be anywhere in cyberspace.

**3.**

Explain the importance of reliable banking arrangements for the efficient conduct of business.

**Response**

Possible responses might include the following points:

- the relative security of holding bank promises as against holding cash – if you hold cash, anyone may rob you; if you hold bank promises, only the bank may rob you
- ease and speed of transfer – it is easier and faster to transfer bank promises than it is to transfer cash
- with relation to the point above, the faster a firm can obtain payment, the less investment it requires to set up and stay in business.

## 7.1 A drill to practise the analysis of borrowing, lending and interest

Analyze each of the following transactions as movements of equal value IN to and OUT of the business.

1. (a) a business borrows £1 000 from XYZ, receiving the money by cheque

IN	bank	£1 000	
OUT	promise to XYZ		£1 000

- (b) the business pays £40 interest by cheque to XYZ

IN	permission to use money (interest)	£40	
OUT	bank		£40

- (c) the business repays £600 by cheque to XYZ

IN	promise from XYZ	£600	
OUT	bank		£600

2. (a) a business lends £800 to ABC, paying the money by cheque

IN	promise from ABC	£800	
OUT	bank		£800

- (b) the business receives a cheque from ABC for £20 interest

IN	bank	£20	
OUT	permission to use money (interest)		£20

- (c) the business receives repayment of £500 by cheque from ABC

IN	bank	£500	
OUT	promise back to ABC		£500



3. a business pays £450 by cheque to a lender, being £250 interest, and £200 repayment of principal

IN	permission to use money (interest)	£250	
IN	promise back from lender	£200	
OUT	bank		£450

4. a business receives a cheque for £275 from a borrower, being £25 interest and £250 repayment of principal

IN	bank	£275	
OUT	permission to use money (interest)		£25
OUT	promise back to borrower		£250

5. a business borrows £1 200, receiving £1 000 by cheque, and £200 in cash

IN	bank	£1 000	
IN	cash	£200	
OUT	promise to lender		£1 200

6. a business pays a lender £350 by cheque and £50 cash, being a repayment of £300, and a payment of £100 interest

IN	promise back from lender	£300	
IN	permission to use money (interest)	£100	
OUT	bank		£350
OUT	cash		£50

## 7.2 A drill to practise analyzing compound transactions

Analyze each of the following transactions as movements of equal value IN to and OUT of the business.

1. a firm buys computer equipment for £500, and software for £200, paying £300 immediately by cheque, with the rest on credit

IN	computer equipment	£500	
IN	software	£200	
OUT	bank		£300
OUT	promise to supplier		£400

2. a firm buys a truck (value £20 000), a trailer (value £5 000), a refrigerator unit (value £7 000) and fuel (value £200), paying the total immediately by cheque

IN	truck	£20 000	
IN	trailer	£5 000	
IN	refrigerator unit	£7 000	
IN	fuel	£200	
OUT	bank		£32 200

### 7.3 A further drill to practise understanding analyzed transactions

Describe in words each of the transactions below, which have already been analyzed in terms of the double entry system as an exchange of equal value.

1.	IN	bank	£3 000	
	OUT	promise to XYZ		£3 000

firm receives payment of £3 000 by cheque from XYZ, or firm borrows £3 000 from XYZ, receiving the money by cheque

2.	IN	promise back from XYZ	£1 000	
	OUT	bank		£1 000

firm repays £1 000 by cheque to XYZ

3.	IN	permission to use money (interest)	£200	
	IN	promise from lender	£800	
	OUT	bank		£1 000

firm pays £1 000 by cheque to lender, being £200 payment of interest and £1 000 repayment of loan

4.	IN	equipment	£900	
	OUT	cash		£100
	OUT	bank		£300
	OUT	promise to supplier		£500

firm buys equipment for £900, paying £100 in cash, £300 by cheque, and the remaining £500 on credit

5.	IN	sales	£100	
	OUT	cash		£30
	OUT	promise to customer		£70

firm receives sales value £100 returned by customer, and pays £30 refund in cash, giving credit for remaining £70

6.	IN	bank	£50	
	IN	promise from supplier	£400	
	OUT	purchases		£450

firm receives £50 by cheque and £400 credit (promise) in respect of purchases returned to supplier

## 8.1 A drill to practise the analysis of one-way transactions and involuntary liabilities

Show how each of the following situations could be recorded in the form of a transaction within the double entry system.

1. a restaurant business pays £1 400 cash to a gangster for 'protection'

IN	protection	£1 400	
OUT	cash		£1 400

2. a firm wins a prize of £500 for ethical advertising

IN	bank (or cash)	£500	
OUT	prize-winning achievement (or just 'prize')		£500

3. a firm gives £1 000 cash as a gift to a political party

IN	political contribution	£1 000	
OUT	cash		£1 000

4. a lottery company pays a prize of £20 million in cash

IN	winning ticket	£20m	
OUT	cash		£20m

5. a firm pays a parking fine of £60 in cash

IN	'fine' (input = reason for payment OUT)	£60	
OUT	cash		£60

6. a firm receives a prize of £5 000 for environmental awareness

IN	cash	£5 000	
OUT	prize (output = reason for receipt IN)		£5 000

7. a parcel delivery business pays £50 cash as compensation to a customer for damaging a parcel.

IN	compensation (= reason for payment OUT)	£50	
OUT	cash		£50

8. a business receives a cheque for £1 000 in settlement of an insurance claim

IN	bank	£1 000	
OUT	insurance settlement		£1 000

9. a firm is tricked into buying worthless goods for £1 000 cash

IN	purchases (or fraud?)	£1 000	
OUT	cash		£1 000

10. a firm sells a worthless second-hand car for £2 000 cash

IN	cash	£2 000	
OUT	sales		£2 000

11. (a) a firm is found guilty of infringing health and safety regulations, and ordered to pay a penalty of £2 000

IN	penalty	£2 000	
OUT	promise/liability to pay penalty		£2 000

- (b) the firm pays the penalty by cheque

IN	promise to pay penalty	£2 000	
OUT	bank		£2 000

12. (a) a firm receives a tax assessment showing a liability to pay tax of £700

IN	tax assessment	£700	
OUT	promise/liability to pay tax		£700

(b) the firm pays the tax by cheque

IN	promise to pay tax	£700	
OUT	bank		£700

13. a business is broken into and £1 800 cash is stolen from the safe

IN	theft	£1 800	
OUT	cash		£1 800

14. a charity receives a donation of £250 in cash

IN	cash	£250	
OUT	donation (= reason for receipt of money)		£250

15. a business is found to have been negligent and ordered to pay damages of £750 to the victim

IN	negligence or damages	£750	
OUT	promise/liability to pay victim		£750

## 8.2 A drill to practise understanding the analysis of one-way transactions and involuntary liabilities

Describe in words the events or situations that could be analyzed and recorded in the double entry system as below:

1.	IN	theft	£100	
	OUT	cash		£100

firm has lost £100 cash as a result of theft

2.	IN	tax charge	£450	
	OUT	promise/liability to pay tax		£450

firm records liability to pay tax of £450

3.	IN	promise/liability to pay tax	£120	
	OUT	bank		£120

firm pays £120 by cheque to settle or reduce tax liability

4.	IN	blackmail	£60	
	OUT	cash		£60

firm pays £60 cash to blackmailer (note how the reason for payment must be noted as an input, even though it is both insubstantial and worthless)

5.	IN	parking fine	£16	
	OUT	cash		£16

firm pays parking fine of £16 in cash

6.	IN	bank	£300	
	OUT	government grant		£300

firm receives £300 by cheque, the receipt being explained as a government grant



7.	IN	charitable donation	£250	
	OUT	bank		£250

firm pays £250 by cheque, the corresponding input (reason or explanation) being 'charitable donation'. In plain English, the firm gives a charitable donation of £250 by cheque

8.	IN	bank	£600	
	OUT	prize		£600

firm wins a cheque for £600 as a prize. (Coming IN is the cheque, or bank type money. The output, reason, or explanation is 'prize')

### 8.3 Exercises on the nature of inputs and outputs in accounting

#### 1.

A firm operates a factory which creates smoke, noise and pollution.

a) Are these inputs or outputs, or neither?

#### Response

In everyday language, smoke, noise and pollution must be classified as outputs of the firm in question.

However, in accounting an output is a reason or explanation for any movement of money or promises IN to the firm. Thus, in accounting, smoke, noise and pollution cannot be classified as outputs unless the firm is somehow able to sell them, or receive payments for creating them.

b) Under what circumstances might the pollution generated by a firm become one of the firm's inputs?

#### Response

In accounting an input is a reason or explanation for why money or promises go OUT of the firm. The creation of smoke, noise and pollution could be classified as an input if the firm were made to pay for permission to create and emit them.

**2.**

‘Water is not an input to the water industry, and fish are not an input to the fishing industry.’ Comment.

**Response**

The apparent paradox arises from the different meaning of ‘input’ in everyday language and in accounting. In everyday language an input is anything that goes in to a process, and in this sense water must be an input in the water industry and fish must be an input in the fishing industry.

In accounting, an input is a reason or explanation for why money or promises go OUT of the firm. Ordinarily, however, under current social and legal arrangements, water and fish are simply taken from the environment. The water industry does not pay for the water it uses, and the fishing industry does not pay for the fish it catches. Thus in accounting, water cannot be classified as an input to the water industry, and fish cannot be counted as input to the fishing industry.

### 9.1 A drill to practise the timing of the record of a transaction

State *whether*, *when*, and *how* each of the events below would normally be recorded as a transaction.

**1.**

(a) Monday: a firm orders goods value £500 from a supplier

no movement of money or invoice, therefore no trigger for action

(b) Tuesday: the firm receives the goods

no movement of money or invoice, therefore no trigger for action

(c) Wednesday: the firm sells the goods for £700 cash

movement of money = trigger to record transaction

IN	cash	£700	
OUT	sales		£700

(d) Thursday: the firm receives an invoice for £500 from the supplier

receipt of invoice = trigger to record purchase on credit

IN	purchases	£500	
OUT	promise to supplier		£500

(e) Friday: the firm pays the supplier £500 by cheque

movement of money = trigger to record transaction

IN	promise back from supplier	£500	
OUT	bank		£500

**2.**

- (a) Monday: a firm orders goods value £250 from a supplier, sending a cheque with the order

movement of money = trigger to record transaction

IN	purchases	£250	
OUT	bank		£250

- (b) Tuesday: the firm receives the goods

no movement of money or invoice, therefore no trigger for action

**3.**

- (a) Monday: a firm receives an order from a customer for goods value £325

no movement of money or invoice, therefore no trigger for action

- (b) Tuesday: the firm sends a sales invoice to the customer

sending of invoice = trigger to record sale on credit

IN	promise from customer	£325	
OUT	sales		£325

- (c) Wednesday: the firm dispatches the goods to the customer

no movement of money or invoice, therefore no trigger for action

- (d) Thursday the firm receives a cheque for £325 from the customer

movement of money = trigger to record transaction

IN	bank	£325	
OUT	promise back to customer		£325

**4.**

- (a) Monday: a firm receives an order from a customer for goods value £850, with cheque payment enclosed

movement of money = trigger to record transaction

IN	bank	£850	
OUT	sales		£850

- (b) Tuesday: the firm delivers the goods

no movement of money or invoice, therefore no trigger for action

**5.**

- (a) Monday: firm receives order for goods value £50

no movement of money or invoice, therefore no trigger for action

- (b) Tuesday: firm delivers goods value £50

no movement of money or invoice, therefore no trigger for action

- (c) Friday: the firm sends a sales invoice to the customer

sending of invoice = trigger to record sale on credit

IN	promise from customer	£50	
OUT	sales		£50

**6.**

(a) Monday: a firm uses electricity value £25

no movement of money or invoice, therefore no trigger for action

(b) Tuesday: the firm uses electricity value £25

no movement of money or invoice, therefore no trigger for action

(c) Wednesday: the firm uses electricity value £25

no movement of money or invoice, therefore no trigger for action

(d) Thursday: the firm uses electricity value £25

no movement of money or invoice, therefore no trigger for action

(e) Friday: the firm receives an electricity bill for £75

receipt of invoice = trigger to record purchase on credit

IN	electricity	£75	
OUT	promise to Electricity Company		£75

## 9.2 Exercises on the timing of the accounting record

### 1.

A firm signs an agreement with a customer to deliver £100 of goods per month for a year.

Identify at least three ways in which this contract could be accounted for, and for each way identified, state the practical steps necessary to ensure that the contract would be accounted for in the way identified.

#### Response

- a) The firm could account for this contract immediately as a single sale of £1 200 of goods. This would involve issuing a sales invoice for the whole contract immediately (before any goods have been delivered), and recording the transaction as:

IN	promise from customer	£1 200	
OUT	sales		£1 200

- b) The firm could account for this contract on a monthly basis as a series of 12 separate sales. This would involve issuing a sales invoice for £100 at the end of each month, and recording the transaction as:

IN	promise from customer	£100	
OUT	sales		£100

- c) The firm could account for the whole of this contract at the end of the year (after all of the goods have been delivered). This would involve issuing a sales invoice for £1 200 at the end of the year, and recording the transaction as:

IN	promise from customer	£1 200	
OUT	sales		£1 200



**2.**

A firm signs an agreement with a customer to provide maintenance and support for the customer's computer facilities over the next two years for a fee of £2 000.

Identify at least three ways in which this contract could be accounted for. State which way you think the firm would prefer, and which way you would recommend. Give reasons for your answers.

**Response**

- a) The firm could account for the whole of this contract immediately, issuing a sales invoice now and recording a single sale of £2 000 of services.
- b) The firm could account for the contract on a monthly basis, issuing an invoice each month for 1/24th of the total contract value
- c) The firm could account for the contract on an annual basis, issuing a sales invoice at the beginning or end of each year recording a sale of £1 000 of services in each year.

I would prefer or recommend option (b). This would ensure that the transactions recorded by the firm would be broadly consistent with its actual provision of services.

The firm itself might prefer option (a), thus boosting recorded sales immediately, even before the firm had delivered the relevant service.

### 10.1 A drill to practise transactions between the firm and its owner

Analyze each of the following transactions as movements of equal value IN to and OUT of the business.

1. an owner puts £300 cash into her business

IN	cash	£300	
OUT	capital (promise to owner)		£300

2. an owner puts a machine, value £450, into his business

IN	machine	£450	
OUT	capital (promise to owner)		£450

3. an owner puts £500 of her own money into the business bank account

IN	bank	£500	
OUT	capital (promise to owner)		£500

4. an owner takes £50 cash out of his own business

IN	capital (promise to owner)	£50	
OUT	cash		£50

5. an owner takes £40 of goods out of the stock of her own business

IN	capital (promise to owner)	£40	
OUT	purchases		£40

## 10.2 A drill to practise understanding analyzed transactions between a firm and its owner

Describe in words the events or situations that could be analyzed and recorded in the double entry system as below:

1.	IN	cash	£100	
	OUT	capital		£100

firm receives £100 cash from owner, and gives owner a claim on the firm ('capital'). More simply: owner puts £100 cash into firm.

2.	IN	capital	£20	
	OUT	cash		£20

firm gives £20 cash out to owner, and takes back part of promise given to owner ('capital'). More simply: owner takes £20 cash out of firm.

3.	IN	machinery	£500	
	OUT	capital		£500

firm takes in machine, value £500, from owner, and in return gives owner a promise/claim (called 'capital') of equal value. More simply, owner puts machine value £500 into firm.

4.	IN	capital	£40	
	OUT	purchases		£40

Most simply: owner takes goods value £40 out of firm for his/her personal use. Alternatively: firm gives out unsold goods value £40 to owner, and reduces owner's claim on the firm by a corresponding amount, by taking back part of promise given to owner.

**11.1 A drill to practise recording transactions on accounts**

For each separate business below, analyze the given transactions as movements IN to and OUT of the business, and record the transactions on a separate account for each item that moves.

Practical advice: unless your handwriting is very small, you should not attempt to draw more than two T accounts across a sheet of A4 paper, and no more than three down the sheet.

**BUSINESS A**

transactions:

1. owner puts £1 000 cash into the business
2. business buys goods value £800 on credit from X
3. business sells goods on credit to Y for £900
4. business pays £750 cash to X
5. business receives £900 cash from Y
6. business sells goods for £100 cash
7. business buys goods value £200 from X on credit
8. business pays £220 cash to X
9. business puts £500 cash into the bank
10. owner takes £30 out of the bank for his own use

**Accounts**

<i>Cash</i>			
(1)	1 000	(4)	750
(5)	900	(8)	220
(6)	100	(9)	500

<i>Capital</i>			
(10)	30	(1)	1 000

<i>Purchases</i>			
(2)	800		
(7)	200		

<i>Promises from/to Supplier X</i>			
(4)	750	(2)	800
(8)	220	(7)	200

<i>Promises from/to Customer Y</i>			
(3)	900	(5)	900

<i>Sales</i>			
		(3)	900
		(6)	100

<i>Bank</i>			
(9)	500	(10)	30

**BUSINESS B**

transactions

1. owner puts £750 of own money into bank for business
2. business borrows £250 from XYZ, receiving a cheque for this amount
3. business buys goods on credit from S for £500
4. business sells goods on credit to C for £400
5. C returns goods previously sold to him for £100
6. business returns goods to S, previously bought for £80
7. business pays wages of £80 by cheque
8. business receives cheque for £250 from C
9. business pays £110 by cheque to XYZ, being £10 interest and £100 repayment of principal
10. business pays wages £20 by cheque

**Accounts**

<i>Bank</i>			
(1)	750	(7)	80
(2)	250	(9)	110
(8)	250	(10)	20

<i>Capital</i>			
		(1)	750

<i>XYZ</i>			
(9)	100	(2)	250

<i>Purchases</i>			
(3)	500	(6)	80

<i>Promises from/to S</i>			
(6)	80	(3)	500

<i>Sales</i>			
(5)	100	(4)	400

<i>Promises from/to C</i>			
(4)	400	(5)	100
		(8)	250

<i>Wages (labour)</i>			
(7)	80		
(10)	20		

<i>Interest (permission to use money)</i>			
(9)	10		

**BUSINESS C**

transactions

1. owner puts £2 000 of her own money into bank for the business
2. business buys goods for £1 500 on credit from P
3. business sells goods on credit for £1 300 to Q
4. business pays rent £200 by cheque
5. business receives cheque for £1 200 from Q
6. Q returns goods previously sold to him for £100
7. business pays insurance £250 by cheque
8. business pays parking fine £50 by cheque
9. business pays £1 000 by cheque to P
10. owner takes goods value £50 out of business for her own use

**Accounts**

<i>Bank</i>			
(1)	2 000	(4)	200
(5)	1 200	(7)	250
		(8)	50
		(9)	1 000

<i>Capital</i>			
(10)	50	(1)	2 000

<i>Purchases</i>			
(2)	1 500	(10)	50

<i>Promises from/to P</i>			
(9)	1 000	(2)	1 500

<i>Promises from/to Q</i>			
(3)	1 300	(5)	1 200
		(6)	100

<i>Sales</i>			
(6)	100	(3)	1 300

<i>Rent (permission to use building)</i>			
(4)	200		

<i>Insurance</i>			
(7)	250		

<i>Parking Fine</i>			
(8)	50		

## 12.1 A drill to practise corrections and transfers between accounts

For each of the separate situations below, record the given transactions on the relevant accounts, and show how any necessary corrections would be made, or how any changes in the system would be implemented.

### A

1. a business records payment of wages £100 by cheque

Wages		Bank	
(1)	100	(1)	100

2. in fact the wages above were paid in cash, not by cheque

Wages		Bank	
(1)	100	(2) 100	(1) 100

  

Cash	
(2)	100



**B**

1. a business records a sale on credit to P, value £300

<i>Promises from/to P</i>		<i>Sales</i>	
(1)	300	(1)	300

2. the sale above was actually made to Q, not to P

<i>Promises from/to P</i>		<i>Sales</i>	
(1)	300	(1)	300
	(2) 300		

  

<i>Promises from/to Q</i>	
(2)	300

**C**

1. a business records the purchase of goods for £250, with payment by cheque

<i>Purchases</i>		<i>Bank</i>	
(1)	250	(1)	250

2. the business discovers that the transaction above was recorded in error, and never in fact took place

<i>Purchases</i>		<i>Bank</i>	
(1)	250	(2) 250	(1) 250

**D**

1. a business receives an invoice for goods purchased from X, value £1 000

<i>Purchases</i>		<i>Promises from/to X</i>	
(1)	1 000	(1)	1 000

2. the invoice above contained an error. The actual value of the goods purchased was only £900

<i>Purchases</i>		<i>Promises from/to X</i>	
(1)	1 000	(2)	100
		(1)	1 000

**E**

1. a business sends an invoice to Y, for goods sold to him, value £1 500

<i>Promises from/to Y</i>		<i>Sales</i>	
(1)	1 500	(1)	1 500

2. the invoice above was sent by mistake. The customer was actually Z, and not Y

<i>Promises from/to Y</i>		<i>Sales</i>	
(1)	1 500	(1)	1 500
(2)	1 500		

**F**

1. a business buys goods on credit for £3 000

<i>Purchases</i>	
(1)	3 000

<i>Promises from/to Supplier</i>	
(1)	3 000

2. the goods above were apples and oranges, and the business decides that it would like to record the purchase of apples and the purchase of oranges on separate accounts. The purchase consisted of apples £1 000, and oranges £2 000

Purchases				Promises from/to Supplier			
(1)	3 000	(2.1)	1 000		(1)	3 000	
		(2.2)	2 000				

**G**

1. a business buys pencils for use in the office, cost £10, paid by cheque

<i>Pencils</i>		<i>Bank</i>	
(1)	10	(1)	10

2. the business buys paper for the office, value £40, paid by cheque

<i>Pencils</i>		<i>Bank</i>	
(1)	10	(1)	10
		(2)	40

  

<i>Paper</i>	
(2)	40

3. the business decides that it would prefer to have one single account for 'Stationery', instead of separate accounts for pencils and for paper

<i>Pencils</i>		<i>Bank</i>	
(1)	10	(1)	10
		(2)	40

  

<i>Paper</i>		<i>Stationery</i>	
(2)	40	(3.1)	10
		(3.2)	40

**H**

1. a business sells goods for £100 cash

<i>Cash</i>		<i>Sales</i>	
(1)	100	(1)	100

2. the business sells goods on credit to Z for £400

<i>Cash</i>		<i>Sales</i>	
(1)	100	(1)	100
		(2)	400

  

<i>Promises from/to Z</i>	
(2)	400

3. the business decides it would prefer to keep separate records of its cash sales and its credit sales

<i>Cash</i>		<i>Sales</i>	
(1)	100	(3.1) 100	(1) 100
		(3.2) 400	(2) 400

  

<i>Promises from/to Z</i>	
(2)	400

  

<i>Cash Sales</i>		<i>Credit Sales</i>	
	(3.1) 100		(3.2) 400

**I**

1. a business buys goods on credit from S, value £1 200

<i>Purchases</i>		<i>Promises from/to S</i>	
(1)	1 200	(1)	1 200

2. some of the goods above, value £200, are unsatisfactory, and are returned to the supplier

<i>Purchases</i>		<i>Promises from/to S</i>	
(1)	1 200	(2)	200
		(1)	1 200

3. since the process of buying and returning unsatisfactory goods is a waste of time, the business decides to monitor the value of goods it has to return, by keeping a separate account for 'Purchase Returns'

<i>Purchases</i>		<i>Promises from/to S</i>	
(1)	1 200	(2)	200
(3)	200	(2)	200
		(1)	1 200

  

<i>Purchase Returns</i>	
(3)	200

1. a business pays wages of £10 000 cash

<i>Cash</i>	
(1)	10 000

2. the business then decides to keep separate records for the cost of factory labour and shop labour. The original payment of £10 000 consisted of £7 000 factory wages and £3 000 office wages

<i>Cash</i>	
(1)	10 000

Office Labour	
(3.2)	3 000

**K**

1. a business makes sales on credit by mail order, value £2 000

<i>Promises from/to Customers</i>		<i>Sales</i>	
(1)	2 000	(1)	2 000

2. goods value £500 are returned to the business by customers

<i>Promises from/to Customers</i>		<i>Sales</i>	
(1)	2 000	(2)	500
	(2)	(1)	2 000
	500		

3. in order to monitor levels of customer satisfaction, the business decides to record the value of goods returned by customers in a separate account for 'Sales Returns'

<i>Promises from/to Customers</i>		<i>Sales</i>	
(1)	2 000	(2)	500
	(2)	(1)	2 000
	500	(3)	500

  

<i>Sales Returns</i>	
(3)	500



**L**

1. a business receives a cheque for £50 from X, a customer who has previously bought goods on credit

<i>Bank</i>		<i>Promises from/to X</i>			
(1)	50	existing promises	•	(1)	50

2. X's cheque is dishonoured

<i>Bank</i>		<i>Promises from/to X</i>			
(1)	50	existing promises	•	(1)	50
		(2)	50		

**M**

1. a business pays factory wages of £4 000 and factory rent of £1 000, each by cheque

<i>Factory Wages</i>		<i>Bank</i>	
(1A)	4 000	(1A)	4 000
		(1B)	1 000

  

<i>Factory Rent</i>	
(1B)	1 000

2. the business then decides it would like to have a single account to record all factory costs

<i>Factory Wages</i>		<i>Bank</i>	
(1A)	4 000	(1A)	4 000
	(2A) 4 000	(1B)	1 000

  

<i>Factory Rent</i>		<i>Factory Costs</i>	
(1B)	1 000	(2A)	4 000
	(2B) 1 000	(2B)	1 000

## N

A business maintains separate accounts for ‘Sales’ and for ‘Sales Returns’.

1. during a year the business sells goods on credit for £10 000

<i>Promises from/to customers</i>		<i>Sales</i>	
(1)	10 000	(1)	10 000

2. during the year, customers return goods value £2 000

<i>Promises from/to customers</i>		<i>Sales</i>	
(1)	10 000	(1)	10 000
(2)	2 000		

  

<i>Sales Returns</i>	
(2)	2 000

3. at the end of the year, the business needs to know the value of its *final* sales for the year (i.e. the value of goods that were sold and kept by customers)

<i>Promises from/to customers</i>		<i>Sales</i>	
(1)	10 000	(3.2)	10 000
(2)	2 000	(1)	10 000

  

<i>Sales Returns</i>		<i>Final Sales</i>	
(2)	2 000	(3.1)	2 000
(3.1)	2 000	(3.2)	10 000

## O

1. a business pays wages £95 cash to a part-time employee

<i>Wages</i>		<i>Cash</i>	
(1)	95	(1)	95

2. the wages above were overpaid. £5 cash is recovered from the employee

<i>Wages</i>		<i>Cash</i>	
(1)	95	(2)	5
		(1)	95

### 13.1 A drill to practise balancing accounts

Balance each of the following separate accounts. (Guidelines for positioning of the totals have been inserted in the first two.)

#### Response

After balancing, the accounts should look like this

A	
200	100
300	
	c/f 400
<u>500</u>	<u>500</u>
b/f 400	

B	
200	700
400	
c/f 100	
<u>700</u>	<u>700</u>
	b/f 100

C	
750	50
250	150
	300
	100
	c/f 400
<u>1 000</u>	<u>1 000</u>
b/f 400	

D	
30	25
10	80
60	
c/f 5	
<u>105</u>	<u>105</u>
	b/f 5

E	
	1 000
	4 500
	1 500
c/f 7 000	
<u>7 000</u>	<u>7 000</u>
	b/f 7 000

F	
600	
400	
250	
750	
500	
c/f 2 500	
<u>2 500</u>	<u>2 500</u>
b/f 2 500	

G	
10	460
40	15
70	25
30	
50	
c/f	<u>300</u>
<u>500</u>	<u>500</u>
	b/f 300

H	
350	625
450	325
200	
300	
175	
225	
	c/f <u>750</u>
<u>1 700</u>	<u>1 700</u>
b/f 750	

I	
113	789
378	436
16	154
205	
1 330	
	c/f <u>663</u>
<u>2 042</u>	<u>2 042</u>
b/f 663	

J	
555	2 361
476	1 567
450	552
3 287	4 513
881	
1 858	
97	
c/f <u>1 389</u>	
<u>8 993</u>	<u>8 993</u>
	b/f 1 389

K	
113	4 361
378	4 570
330	
2 699	
3 713	
c/f <u>1 698</u>	
<u>8 931</u>	<u>8 931</u>
	b/f 1 698

L	
5 234	1 442
2 839	926
542	2 654
	65
	1 457
	146
	c/f <u>1 925</u>
<u>8 615</u>	<u>8 615</u>
b/f 1 925	

### 13.2 A drill to practise the difference between entries and balances

1. show an example of an account

- with at least three **entries**, carrying a DR **balance**

example:

Account 1	
100	50
200	
	c/f 250
<u>300</u>	<u>300</u>
b/f 250	

2. show an example of an account

- with at least three **entries**, carrying a CR **balance**

example:

Account 2	
800	1 200
300	
c/f 100	
<u>1 200</u>	<u>1 200</u>
	b/f 100

3. show an example of an account

- with two DR **entries**, carrying a CR **balance**

example:

(Note: in order to end with a CR balance, an account with two DR entries would need at least one CR entry as well.)

Account 3	
1 000	3 500
2 000	
c/f 500	
<u>3 500</u>	<u>3 500</u>
	b/f 500

4. show an example of an account

- with three CR **entries**, and a DR entry, carrying a DR **balance**

example

<b>Account 4</b>	
4 000	3 200
	800
	1 000
<i>c/f</i> 1 000	
<u>5 000</u>	<u>5 000</u>
	<i>b/f</i> 1 000

5. show an example of an account

- with five **entries**, carrying a **nil balance**

example

<b>Account 5</b>	
750	2 300
250	700
<u>2 000</u>	
<u>3 000</u>	<u>3 000</u>



**14.1 A drill to develop familiarity with accounts and balances**

State the balance you would reasonably expect to find (DR balance, CR balance, nil balance, or could be either) on each of the following accounts.

1. a sales account

will usually carry a CR balance

2. a purchases account

will usually carry a DR balance

3. a debtor's account

will usually carry a DR balance

4. a creditor's account

will usually carry a CR balance

5. an account for bank

could carry either a DR balance or a CR balance (for an overdraft)

6. a cash account

if used only for money in the form of notes and coins ('petty cash') should carry a DR balance. If used for bank-type money, could carry either a DR balance or a CR balance (for an overdraft)

7. a capital account (for promises to or from the owner)

will usually carry a CR balance

8. an electricity account

will usually carry a DR balance

9. an account for rent (permission to use a building)

will usually carry a DR balance if the firm is **paying** rent for permission to use a building

10. a customer's account

will usually carry a DR balance (net promises IN from customer)

11. a lender's account

will usually carry a CR balance (promise OUT to repay lender)

12. an account for wages or labour

will usually carry a DR balance

13. a supplier's account

will usually carry a CR balance (net promises OUT to pay supplier)

14. an account for purchase returns

will usually carry a CR balance (purchases going back OUT)

15. a borrower's account

will usually carry a DR balance (promise IN to repay money borrowed)

16. an account for a customer who has overpaid the business by mistake

will carry a CR balance (the firm's promise or liability going OUT, to repay the value overpaid)

17. an account for interest (permission to use money)

will usually carry a DR balance if the firm is **paying** interest for permission to use money

18. an account for sales returns

will usually carry a DR balance (sales coming back IN)

19. an account for a supplier who has been overpaid by mistake  
will carry a DR balance (the supplier's promise coming IN to repay the value overpaid)
20. an account for advertising  
will usually carry a DR balance (advertising is an input)
21. the account for a lender who has been completely repaid  
should carry a nil balance
22. the account for a borrower who has repaid the whole amount originally borrowed  
should carry a nil balance
23. the account for bank, if the business has an overdraft  
will carry a CR balance
24. an account (in a retail shop) for refunds  
will carry a DR balance (in the event of a refund, **money** goes OUT of the firm. The 'Refund Account' is used to record the input which explains the movement of money)
25. an account for machinery and equipment  
will usually carry a DR balance

## 14.2 A drill to practise understanding entries in accounts

State where you would reasonably expect to find the DR or the CR corresponding to each of the accounting entries listed below, and describe the likely events or circumstances that the entries are intended to record.

1. a CR in a sales account

corresponding DR entry most likely to be found in cash or a customer's account, recording a sale transaction

2. a DR in a sales account

corresponding CR entry most likely to be found in cash or a customer's account, recording sales return

3. a DR in a purchases account

corresponding CR entry most likely to be found in cash or a customer's account, recording a purchase transaction

4. a CR in a purchases account

corresponding DR entry most likely to be found in cash or a customer's account, recording a purchase return

5. a DR in a debtor's account

corresponding CR entry most likely to be found in the sales account, recording a sale on credit

6. a CR in a debtor's account

corresponding DR entry most likely to be found in cash or bank, recording payment received from a debtor

7. a CR in the account for bank

corresponding DR entry could be in almost any account, depending on **why** the money was paid out

8. a DR in the account for bank

corresponding CR entry could be found in almost any account, depending on **why** the money was received

9. a DR in a creditor's account

corresponding CR entry most likely to be found in the account for cash or bank, recording payment made to the creditor

10. a CR in a creditor's account

corresponding DR entry most likely to be found in purchases account

11. a DR in the cash account

corresponding CR entry could be found in almost any account, depending on **why** the money was received

12. a CR in the cash account

corresponding DR entry could be in almost any account, depending on **why** the money was paid out

13. a CR in the capital account

corresponding DR entry most likely to be found in the account for cash or bank, recording payment made to the firm by the owner

14. a DR in the capital account

corresponding CR entry most likely to be found in the account for cash or bank, recording money taken out of the firm by the owner

**15. a DR in the account for electricity**

corresponding CR entry most likely to be found in the account for promises to the electricity supplier

**16. a CR in the account for electricity**

corresponding DR entry most likely to be found in the account for promises to the electricity supplier, recording a reduction or refund of an amount already owed

**17. a DR in the account for rent payable**

corresponding CR entry most likely to be found in the account for bank or for promises to the landlord, recording the firm's actual payment or liability to pay rent

**18. a CR in the account for rent payable**

corresponding DR entry most likely to be found in the account for bank or cash, or in the landlord's account, recording a refund of rent, or a reduction in the liability to pay rent

**19. a DR in a customer's account**

corresponding CR entry most likely to be found in the sales account, recording a sale on credit

**20. a CR in a customer's account**

corresponding DR entry most likely to be found in the account for bank or cash, recording receipt of payment from customer

**21. a DR in a supplier's account**

corresponding CR entry most likely to be found in account for bank or cash, recording payment made to the supplier

**22. a CR in a supplier's account**

corresponding DR entry most likely to be found in purchases account,  
recording a purchase on credit

**23. a CR in a lender's account**

corresponding DR entry most likely to be found in account for bank,  
recording receipt of money from the lender

**24. a DR in a lender's account**

corresponding CR entry most likely to be found in account for bank,  
recording repayment made to the lender

**25. a DR in a wages account**

corresponding CR entry most likely to be found in account for bank or cash,  
recording payment of wages

**26. a CR in a wages account**

The wages account is used to record the input labour. This CR apparently shows labour going OUT. It must be part of a correction or transfer, with the corresponding DR entry most likely to be found in bank or cash account, recording correction of previous overpayment of wages

**27. a CR in the account for purchase returns**

corresponding DR entry most likely to be found in the supplier's account (for promises from the supplier), recording a purchase return

**28. a DR in the account for purchase returns**

Purchase returns should be going OUT. This DR entry is coming IN. It is probably the correction of an error. The corresponding CR entry is most likely to be found in the supplier's account. This would correct a previously recorded overstatement of the value involved in a purchase return

**29. a CR in the account for sales returns**

Sales returns should be coming IN. This CR entry is going OUT. The corresponding DR entry is most likely to be found in the customer's account. This would possibly be to correct an overstatement of the value involved in a sales return previously recorded

**30. a DR in the account for sales returns**

corresponding CR entry most likely to be found in the customer's account, recording a straightforward sales return

**31. a DR in the account for advertising**

corresponding CR entry most likely to be found in the account for promises to the supplier of advertising, or in the account for bank or cash, recording payment for advertising

**32. a CR in the account for advertising**

corresponding DR entry most likely to be found in account for promises to the supplier of advertising, recording correction of a previous error



### 14.3 A drill to develop understanding of account balances

State the significance of the following (possibly unusual) situations.

1. a CR balance on a customer's account

Customers on credit are debtors, and accounts for their promises will normally carry a DR balance. A CR balance on a customer's account would indicate that the firm owes money to the customer, perhaps because the customer has mistakenly paid too much

2. a DR balance on a supplier's account

Normally a supplier's account will show a CR balance, showing the firm's promises going OUT to pay the supplier for what it has received. A DR balance on a supplier's account would indicate that the supplier owes money to the firm, possibly because of a previous overpayment made by the firm

3. a CR balance on the account for bank

A CR balance on the account for bank indicates an overdraft – promises going OUT to pay the bank

4. a CR balance on the cash account

If the cash account is used only for money in the form of notes and coins, a CR balance on the cash account must indicate an error (for all except counterfeiters it is impossible to pay out more notes and coins than have come in to the firm)

5. a DR balance on the capital account

The capital account normally shows net promises going OUT to the owner, these promises constituting the owner's claim on the business. A DR balance on the capital account would indicate 'negative capital' – that is, the firm's claim on the owner

### 15.1 A drill to practise the preparation of the trial balance

Prepare a trial balance for each of the separate sets of accounts below, which have already been balanced.

In each case (depending on whether the TB actually balances) state which errors may, or may not, have occurred in the work already done to record transactions and balance the accounts.

#### A.

<div>Sales</div> <hr/> <div>b/f 350</div>	<div>Purchases</div> <hr/> <div>b/f 260</div>	<div>Capital</div> <hr/> <div>b/f 400</div>
<div>Wages</div> <hr/> <div>b/f 150</div>	<div>Furniture</div> <hr/> <div>b/f 380</div>	<div>Bank</div> <hr/> <div>b/f 80</div>
<div>Customer</div> <hr/> <div>b/f 100</div>	<div>Interest</div> <hr/> <div>b/f 10</div>	<div>Supplier</div> <hr/> <div>b/f 70</div>

#### 15.1A Trial Balance

	DR	CR
sales		350
purchases	260	
capital		400
wages	150	
furniture	380	
bank		80
interest	10	
customer	100	
supplier		70
TOTAL	<u>£900</u>	<u>£900</u>

This trial balance **does balance**, indicating that entries in the accounts have been made with balancing DRs and CRs, and that the accounts have been properly balanced.

**B.**

<i>Bank</i>		<i>Capital</i>		<i>Debtor</i>	
b/f 40		b/f 210		b/f 110	
<i>Machinery</i>		<i>Electricity</i>		<i>Purchases</i>	
b/f 200		b/f 25		b/f 130	
<i>Sales</i>		<i>Creditor</i>		<i>Wages</i>	
b/f 250		b/f 75		b/f 50	

**15.1B Trial Balance**

	DR	CR
bank	40	
capital		210
debtor	110	
machinery	200	
electricity	25	
purchases	130	
sales		250
creditor		75
wages	50	
TOTAL	<u>£555</u>	<u>£535</u>

This trial balance **does not balance**, indicating that entries in the accounts have **not** been made with balancing DRs and CRs, or that the accounts have **not** been properly balanced.

## 15.2 A drill to practise recording transactions and balancing accounts

For each of the separate situations below, record the given transactions on the relevant accounts, balance the accounts, and prepare a trial balance at the end of the period.

### A

1. an owner puts £500 into a bank account for his business
2. business buys goods for £400 on credit from X
3. business sells goods for £700 on credit to Y
4. business pays £400 by cheque to X
5. business receives payment of £500 by cheque from Y
6. business takes back goods from Y, previously sold to him for £200
7. business pays wages £100 by cheque
8. business buys goods for £300 on credit from X
9. business sells goods for £350, receiving payment by cheque
10. business pays £40 for electricity

<i>Bank</i>			
(1)	500	(4)	400
(5)	500	(7)	100
(9)	350	(10)	40
		c/f	810
	<u>1 350</u>		<u>1 350</u>
b/f	810		

<i>Capital</i>	
(1)	500

<i>Purchases</i>			
(2)	400		
(8)	300	c/f	700
	<u>700</u>		<u>700</u>
b/f	700		

<i>Promises from/to X</i>			
(4)	400	(2)	400
		(8)	300
c/f	300		
	<u>700</u>		<u>700</u>
		b/f	300

<i>Sales</i>			
(6)	200	(3)	700
		(9)	350
c/f	850		
	<u>1 050</u>		<u>1 050</u>
		b/f	850

<i>Promises from/to Y</i>			
(3)	700	(5)	500
		(6)	200
	<u>700</u>		<u>700</u>

<i>Wages (labour)</i>	
(7)	100

<i>Electricity</i>	
(10)	40

### 15.2A Trial Balance

	DR	CR
bank	810	
capital		500
purchases	700	
promises from/to X		300
sales		850
wages	100	
electricity	40	
total	<u>£1 650</u>	<u>£1 650</u>

**B**

1. an owner puts £750 into a bank account for his business
2. business borrows £500 from ABC finance
3. business buys production machinery for £600, paying by cheque
4. business buys raw materials for £300 on credit from S
5. business sells goods for £850 on credit to C
6. business pays wages £150 by cheque
7. owner takes £50 cash out of business bank account
8. business pays £300 by cheque to S
9. business sells goods on credit to C for £150
10. business receives cheque for £900 from C

<i>Bank</i>		<i>Capital</i>		<i>ABC Finance</i>	
(1) 750	(3) 600	(7) 50	(1) 750		(2) 500
(2) 500	(6) 150	c/f 700			
(10) 900	(7) 50	<u>750</u>	<u>750</u>		
	(8) 300	<u>750</u>	b/f 700		
	c/f 1 050				
<u>2 150</u>	<u>2 150</u>				
b/f 1 050					

  

<i>Machinery</i>		<i>Raw Materials</i>		<i>Promises from/to S</i>	
(3) 600		(4) 300		(8) <u>300</u>	(4) <u>300</u>

  

<i>Promises from/to C</i>		<i>Sales</i>		<i>Wages</i>	
(5) 850	(10) 900		(5) 850	(6) 150	
(9) 150			(9) 150		
	c/f 100	c/f 1 000	<u>1 000</u>		
<u>1 000</u>	<u>1 000</u>	<u>1 000</u>	b/f 1 000		
b/f 100					

**15.2B Trial Balance**

	DR	CR
bank	1 050	
capital		700
ABC Finance		500
machinery	600	
raw materials	300	
promises from/to C	100	
sales		1 000
wages	150	
TOTAL	<u>£2 200</u>	<u>£2 200</u>

### **15.3 More drills to practise recording transactions and balancing accounts**

Return to the drills at the end of Chapter 11, and, for each separate business, record the given transactions on the relevant accounts, balance the accounts, and prepare a trial balance at the end of the period.

**A.****11.1 BUSINESS A - transactions**

1. owner puts £1 000 cash into the business
2. business buys goods value £800 on credit from X
3. business sells goods on credit to Y for £900
4. business pays £750 cash to X
5. business receives £900 cash from Y
6. business sells goods for £100 cash
7. business buys goods value £200 from X on credit
8. business pays £220 cash to X
9. business puts £500 cash into the bank
10. owner takes £30 out of the bank for his own use

Cash	
(1) 1 000	(4) 750
(5) 900	(8) 220
(6) 100	(9) 500
	c/f 530
<u>2 000</u>	<u>2 000</u>
b/f 530	

Capital	
(10) 30	(1) 1 000
c/f 970	
<u>1 000</u>	<u>1 000</u>
	b/f 970

Purchases	
(2) 800	
(7) 200	c/f 1 000
<u>1 000</u>	<u>1 000</u>
b/f 1 000	

Promises from/to X	
(4) 750	(2) 800
(8) 220	(7) 200
c/f 30	
<u>1 000</u>	<u>1 000</u>
	b/f 30

Promises from/to Y	
(3) 900	(5) 900
<u>900</u>	<u>900</u>

Sales	
c/f 1 000	(3) 900
<u>1 000</u>	(6) 100
	<u>1 000</u>
	b/f 1 000

Bank	
(9) 500	(10) 30
	c/f 470
<u>500</u>	<u>500</u>
b/f 470	

**11.1A Trial Balance**

	DR	CR
cash	530	
capital		970
purchases	1 000	
promises from/to X		30
sales		1 000
bank	470	
TOTAL	<u>£2 000</u>	<u>£2 000</u>

**B.****11.1 BUSINESS B - transactions**

1. owner puts £750 of her own money into bank for her business
2. business borrows £250 from XYZ, receiving a cheque for this amount
3. business buys goods on credit from S for £500
4. business sells goods on credit to C for £400
5. C returns goods previously sold to him for £100
6. business returns goods to S, previously bought for £80
7. business pays wages of £80 by cheque
8. business receives cheque for £250 from C
9. business pays £110 by cheque to XYZ, being £10 interest and £100 repayment of principal
10. business pays wages £20 by cheque

Bank	
(1) 750	(7) 80
(2) 250	(9) 110
(8) 250	(10) 20
	c/f 1 040
<u>1 250</u>	<u>1 250</u>
b/f 1 040	

Capital	
	(1) 750

Promises from/to XYZ	
(9) 100	(2) 250
c/f 150	
<u>250</u>	<u>250</u>
	b/f 150

Purchases	
(3) 500	(6) 80
	c/f 420
<u>500</u>	<u>500</u>
b/f 420	

Promises from/to S	
(6) 80	(3) 500
c/f 420	
<u>500</u>	<u>500</u>
	b/f 420

Promises from/to C	
(4) 400	(5) 100
	(8) 250
	c/f 50
<u>400</u>	<u>400</u>
b/f 50	

Sales	
(5) 100	(4) 400
c/f 300	
<u>400</u>	<u>400</u>
	b/f 300

Wages or Labour	
(7) 80	
(10) 20	c/f 100
<u>100</u>	<u>100</u>
b/f 100	

Interest Payable	
(9) 10	

**11.1B Trial Balance**

	DR	CR
Bank	1 040	
Capital		750
Promises from/to XYZ		150
Purchases	420	
Promises from/to S		420
Promises from/to C	50	
Sales		300
Wages or Labour	100	
Interest Payable	10	
	<u>£1 620</u>	<u>£1 620</u>



**C.****11.1 BUSINESS C - transactions**

1. owner puts £2 000 of her own money into bank for the business
2. business buys goods for £1 500 on credit from P
3. business sells goods on credit for £1 300 to Q
4. business pays rent £200 by cheque
5. business receives cheque for £1 200 from Q
6. Q returns goods previously sold to him for £100
7. business pays insurance £250 by cheque
8. business pays parking fine £50 by cheque
9. business pays £1 000 by cheque to P
10. owner takes goods value £50 out of business for her own use

Bank	
(1) 2 000	(4) 200
(5) 1 200	(7) 250
	(8) 50
	(9) 1 000
	c/f 1 700
<u>3 200</u>	<u>3 200</u>
b/f 1 700	

Capital	
(10) 50	(1) 2 000
c/f 1 950	
<u>2 000</u>	<u>2 000</u>
	b/f 1 950

Purchases	
(2) 1 500	(10) 50
	c/f 1 450
<u>1 500</u>	<u>1 500</u>
b/f 1 450	

Promises from/to P	
(9) 1 000	(2) 1 500
c/f 500	
<u>1 500</u>	<u>1 500</u>
	b/f 500

Promises from/to Q	
(3) 1 300	(5) 1 200
	(6) 100
<u>1 300</u>	<u>1 300</u>

Sales	
(6) 100	(3) 1 300
c/f 1 200	
<u>1 300</u>	<u>1 300</u>
	b/f 1 200

Rent Payable
(4) 200

Insurance
(7) 250

Parking Fine
(8) 50

**11.1C Trial Balance**

	DR	CR
Bank	1 700	
Capital		1 950
Purchases	1 450	
Promises from/to P		500
Sales		1 200
Rent Payable	200	
Insurance	250	
Parking Fine	50	
	<u>£3 650</u>	<u>£3 650</u>

## 16.1 A drill to practise the preparation of a simple P&L Account

### Business 1

Business 1 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Make the relevant transfers to and from the firm's P&L Account for Period 1, and determine the profit or loss for the period.

At the end of Period 1, Business 1's closing stock is valued at £100.

**Response** (original entries are coloured grey)

<b>Bank</b>		<b>Capital</b>	
balance at end of period	250	balance at end of period	50
<b>Purchases</b>		<b>Sales</b>	
balance at end of period	600	to P&L	800
	<u>600</u>	balance at end of period	<u>800</u>
<b>P&amp;L Account for Period 1</b>			
purchases	600	sales	800
		closing stock	100
c/f	<u>300</u>		<u>900</u>
	<u>900</u>		<u>900</u>
		b/f profit	300
		<b>Stock</b>	
		from P&L	100

## Business 2

Business 2 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Make the relevant transfers to and from the firm's P&L Account for Period 1, and determine the profit or loss for the period.

At the end of Period 1, Business 2's closing stock is valued at £50.

**Response** (original entries are coloured grey)

<b>Bank</b>		<b>Capital</b>	
balance at end of period	100	balance at end of period	140
<b>Purchases</b>		<b>Sales</b>	
balance at end of period	450	to P&L	430
	<u>450</u>	balance at end of period	<u>430</u>
<b>Promises from/to Customer A</b>		<b>Promises from/to Supplier X</b>	
balance at end of period	120	balance at end of period	100
<b>P&amp;L Account for Period 1</b>			
purchases	450	sales	430
c/f	30	closing stock	50
	<u>480</u>		<u>480</u>
		b/f profit	30
<b>Stock</b>			
		from P&L	50

### Business 3

Business 3 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Make the relevant transfers to and from the firm's P&L Account for Period 1, and determine the profit or loss for the period.

At the end of Period 1, Business 3's closing stock is valued at £20.

**Response** (original entries are coloured grey)

<i>Purchases</i>	
balance at end of period	900
	<u>900</u>
to P&L	<u>900</u>

<i>Bank</i>	
balance at end of period	50

<i>Promises from/to Customer B</i>	
balance at end of period	250

<i>Promises from/to Supplier Y</i>	
balance at end of period	150

<i>Sales</i>	
to P&L	<u>750</u>
balance at end of period	<u>750</u>

<i>Capital</i>	
balance at end of period	200

<i>P&amp;L Account for Period 1</i>			
<i>purchases</i>	<b>900</b>	<i>sales</i>	<b>750</b>
		<i>closing stock</i>	<b>20</b>
		c/f	130
	<u>900</u>		<u>900</u>
<i>b/f loss</i>	<b>130</b>		

<i>Stock</i>	
from P&L	<b>20</b>

### Business 4

Business 4 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Make the relevant transfers to and from the firm's P&L Account for Period 1, and determine the profit or loss for the period.

At the end of Period 1, Business 4's closing stock is valued at £80.

**Response** (original entries are coloured grey)

<i>Promises from/to Customer C</i>		<b>Sales</b>	
<i>balance at end of period</i>	75	<b>to P&amp;L 700</b>	<i>balance at end of period</i> 700
<b>Purchases</b>		<i>Promises from/to Supplier Z</i>	
<i>balance at end of period</i>	780		<i>balance at end of period</i> 120
	<b>to P&amp;L 780</b>		
<i>Capital</i>		<i>Bank</i>	
	<i>balance at end of period</i> 95	<i>balance at end of period</i>	60
<b>P&amp;L Account for Period 1</b>			
<b>purchases 780</b>		<b>sales 700</b>	
		<b>closing stock 80</b>	
<u>780</u>		<u>780</u>	
<b>result: neither profit nor loss</b>		<b>Stock</b>	
		<b>from P&amp;L 80</b>	

## 16.2 A drill to practise recording transactions and transferring balances to a simple P&L Account

For each separate business below, record the given transactions on the relevant accounts, balance the accounts if necessary, and prepare a P&L Account at the end of the period.

### Business 1

1. owner puts £1 500 into a bank account for the business
2. business buys goods on credit for £1 800
3. business sells goods on credit for £2 100

NOTE goods value £800 remain in stock at the end of the period

<i>Bank</i>	
(1)	1 500

<i>Capital</i>	
(1)	1 500

<i>Purchases</i>	
(2)	<u>1 800</u>
	to P&L <u>1 800</u>

<i>Promises from/to Supplier</i>	
(2)	1 800

<i>Promises from/to Customer</i>	
(3)	2 100

<i>Sales</i>	
to P&L	<u>2 100</u>
(3)	<u>2 100</u>

<i>P&amp;L Account</i>			
<i>purchases</i>	1 800	<i>sales</i>	2 100
<i>c/f</i>	<u>1 100</u>	<i>closing stock</i>	800
	<u>2 900</u>		<u>2 900</u>
		<i>b/f profit</i>	1100

<i>Stock</i>	
from P&L	800

1. owner puts £5 000 into a bank account for the business
2. business buys goods on credit for £4 700
3. business sells goods on credit for £3 000

NOTE goods value £700 remain in stock at the end of the period

Bank	
(1)	5 000

	<i>Capital</i>	
	(1)	5 000

<i>Purchases</i>			
(2)	<u>4 700</u>	to P&L	<u>4 700</u>

<i>Promises from/to Supplier</i>	
	(2) 4 700

<i>Promises from/to Customer</i>	
(3)	3 000

	Sales		
to P&L	<u>3 000</u>	(3)	<u>3 000</u>

<i>P&amp;L Account</i>			
<i>purchases</i>	4 700	<i>sales</i>	3 000
		<i>closing stock</i>	700
		<i>c/f</i>	1 000
	<u>4 700</u>		<u>4 700</u>
<i>b/f loss</i>	1 000		

Stock	
from P&L	700

1. owner puts £3 000 into a bank account for the business
2. business buys goods on credit for £1 900
3. business returns goods value £400 to supplier
4. business sells goods on credit for £500

<i>Bank</i>			
(1)	3 000		
<i>Purchases</i>			
(2)	1 900	(3)	400
		<i>c/f</i>	1 500
	<u>1 900</u>		<u>1 900</u>
<i>b/f</i>	<u>1 500</u>	<i>to P&amp;L</i>	<u>1 500</u>

<i>Capital</i>			
		(1)	3 000
<i>Promises from/to Supplier</i>			
(3)	400	(2)	1 900
c/f	1 500		
	<u>1 900</u>		<u>1 900</u>
		b/f	1 500

Promises from/to Customer	
(4)	500

Sales			
to P&L	<u>500</u>	(4)	<u>500</u>

P&L Account			
<i>purchases</i>	1 500	<i>sales</i>	5 000
		<i>closing stock</i>	1 000
	<u>1 500</u>		<u>1 500</u>

	Stock
from P&L	1 000



**Business 4**

1. owner puts £750 into a bank account for the business
2. business buys goods on credit for £600
3. business sells goods for £600 on credit

NOTE goods value £50 remain in stock at the end of the period

<i>Bank</i>		<i>Capital</i>	
(1)	750	(1)	750
<i>Purchases</i>		<i>Promises from/to Supplier</i>	
(2)	<u>600</u>	(2)	600
	to P&L <u>600</u>		
<i>Promises from/to Customer</i>		<i>Sales</i>	
(3)	600	to P&L <u>600</u>	(3) <u>600</u>
<i>P&amp;L Account</i>		<i>Stock</i>	
<i>purchases</i>	600	<i>from P&amp;L</i>	50
<i>c/f</i>	<u>50</u>		
	<u>650</u>		
	<i>sales</i>		
	<i>closing stock</i>		
	600		
	50		
	<u>650</u>		
	<i>b/f profit</i>		
	50		

### 17.1 A drill to practise accounting for the claim to profit or loss

For each separate business below, record the given transactions on the relevant accounts, balance the accounts if necessary, prepare a P&L Account at the end of the period, and transfer the eventual profit or loss from the P&L Account to the Capital Account.

#### Business 1

1. owner puts £750 into a bank account for the business
  2. business buys goods on credit for £900
  3. business sells goods on credit for £1 000
- NOTE goods value £400 remain in stock at the end of the period

Bank	
(1)	750

Capital	
(1)	750
profit	500

Purchases	
(2)	900
	to P&L
	900

Promises from/to Supplier	
(2)	900

Promises from/to Customer	
(3)	1 000

Sales	
to P&L	1 000
(3)	1 000

P&L Account			
purchases	900	sales	1 000
		closing stock	400
c/f	500		
	<u>1 400</u>		<u>1 400</u>
to capital	500	b/f profit	500

Stock	
from P&L	400

## Business 2

1. owner puts £2 500 into a bank account for the business

2. business buys goods on credit for £2 350

3. business sells goods on credit for £1 500

NOTE goods value £350 remain in stock at the end of the period

<i>Bank</i>	
(1)	2 500

<i>Capital</i>	
loss	500
(1)	2 500

<i>Purchases</i>	
(2)	<u>2 350</u>
to P&L	<u>2 350</u>

<i>Promises from/to Supplier</i>	
(2)	2 350

<i>Promises from/to Customer</i>	
(3)	1 500

<i>Sales</i>	
to P&L	<u>1 500</u>
(3)	<u>1 500</u>

<i>P&amp;L Account</i>			
purchases	2 350	sales	1 500
		closing stock	350
		c/f	500
	<u>2 350</u>		<u>2 350</u>
b/f loss	<u>500</u>	to capital	<u>500</u>

<i>Stock</i>	
from P&L	350

**Business 3**

1. owner puts £1 500 into a bank account for the business
2. business buys goods on credit for £950
3. business returns goods value £200 to supplier
4. business sells goods on credit for £250

NOTE goods value £500 remain in stock at the end of the period

Bank	
(1)	1 500

Capital	
(1)	1 500

Purchases			
(2)	950	(3)	200
		c/f	750
	<u>950</u>		<u>950</u>
b/f	<u>750</u>	to P&L	<u>750</u>

Promises from/to Supplier			
(3)	200	(2)	950
c/f	750		
	<u>950</u>		<u>950</u>
		b/f	750

Promises from/to Customer	
(4)	250

Sales	
to P&L	<u>250</u>
(4)	<u>250</u>

P&L Account			
purchases	750	sales	250
		closing stock	500
	<u>750</u>		<u>750</u>

Stock	
from P&L	500

**Result: neither profit nor loss.**  
**Therefore no transfer to Capital Account**

**Business 4**

1. owner puts £375 into a bank account for the business
  2. business buys goods on credit for £300
  3. business sells goods for £300 on credit
- NOTE goods value £25 remain in stock at the end of the period

Bank	
(1)	375

Capital	
(1)	375
profit	25

Purchases	
(2)	<u>300</u>
to P&L	<u>300</u>

Promises from/to Supplier	
(2)	300

Promises from/to Customer	
(3)	300

Sales	
to P&L	<u>300</u>
(3)	<u>300</u>

P&L Account			
purchases	300	sales	300
		closing stock	25
c/f	<u>25</u>		
	<u>325</u>		<u>325</u>
to capital	<u>25</u>	b/f profit	<u>25</u>

Stock	
from P&L	25

### 17.2 An exercise on the nature of the accounting equation

An inexperienced examiner has prepared a test for students who are learning the accounting equation, as shown below:

*Accounting Equation: fill in the gaps in this table*

business	assets £	liabilities £	capital £
A	800	200	?
B	450	?	300
C	?	100	400

Carefully explain why rows B and C may give a misleading impression of the accounting equation and the nature of capital.

#### Response

Rows B and C appear to ignore the fact that capital is the dependent variable in the balance sheet equation. You cannot use the value of capital to find the value of assets or liabilities in the equation, because you cannot know the value of capital unless you already know the value of assets and liabilities.

### 17.3 An exercise on profit and changes in net assets

Determine the profit or loss made in the period by each separate business whose assets and liabilities are given below.

#### 1.

Business begins with assets £400 and liabilities £300, and ends with assets £500, liabilities £350. There were no transactions with the owner during the period.

#### Response

	assets	liabilities	net assets
	£	£	£
beginning	400	(300)	100
ending	500	(350)	150
<b>increase in net assets</b>			<b>50</b>

No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £50.

#### 2.

Business begins with assets £950 and liabilities £600, and ends with assets £900, liabilities £500. There were no transactions with the owner during the period.

#### Response

	assets	liabilities	net assets
	£	£	£
beginning	950	(600)	350
ending	900	(500)	400
<b>increase in net assets</b>			<b>50</b>

No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £50.

(Note the increase in *net* assets, even though the value of *gross* assets has fallen in the period.)

**3.**

Business begins with assets £750 and liabilities £700, and ends with assets £600, liabilities £200. There were no transactions with the owner during the period.

**Response**

	assets	liabilities	net assets
	£	£	£
beginning	750	(700)	50
ending	600	(200)	400
<b>increase in net assets</b>			<b>350</b>

No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £350.

(Note again the increase in *net* assets, even though the value of *gross* assets has fallen in the period.)

**4.**

Opening assets £250, closing assets £500. Opening liabilities £200, closing liabilities £600.

**Response**

	assets	liabilities	net assets
	£	£	£
opening	250	(200)	50
closing	500	(600)	(100)
<b>(decrease) in net assets</b>			<b>(150)</b>

Assuming no transactions with the owner, the entire decrease in net assets must be equal to loss for the period. Loss therefore is £150.

(Note here the loss or *decrease* in *net* assets, despite the *increase* in *gross* assets in the period.)



**5.**

What difference would it make to your answer in (1) above if during the period the owner had taken assets value £30 out of the business?

**Response**

Original answer to (1):

*No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £50.*

**Difference:**

With an increase in net assets of £50 even after the owner has taken out £30, the firm must have made a profit of £80.

**6.**

What difference would it make to your answer in (2) above if during the period the owner had put assets value £200 into the business?

**Response**

Original answer to (2):

*No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £50.*

**Difference:**

With an increase in net assets of only £50 after the owner has put in £200, the firm must have made a loss of £150.

**7.**

What difference would it make to your answer in (3) above if during the period the owner had put assets value £400 into the business, and taken assets value £900 out of the business?

**Response**

Original answer to (3):

*No transactions with the owner means that the entire increase in net assets must be equal to profit for the period. Profit therefore is £350.*

**Difference:**

Putting in assets value £400 and taking out assets value £900 means that the owner has withdrawn a net value of £500.

But with an increase in net assets of £350 even after the owner has taken out a net value of £500, the firm must have made a profit of £850.

## 18.1 A drill to practise preparation of a simple P&L Account and a balance sheet

### Business 1

Business 1 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Transfer the relevant balances to and from a P&L Account for the period, and present the firm's balance sheet at the end of the period.

NOTE: at the end of Period 1, Business 1's closing stock is valued at £80.

**Response** (original entries are coloured grey)

<b>Sales</b>		<b>Purchases</b>	
to P&L	700	balance at end of period	500
	<u>700</u>		<u>500</u>
		to P&L	500
			<u>500</u>
<b>Bank</b>		<b>Debtors</b>	
balance at end of period	250	balance at end of period	100
<b>Creditors</b>		<b>Capital</b>	
	balance at end of period		balance at end of period
	50		100
		c/f	380
			<u>380</u>
			<u>380</u>
			profit
			<u>280</u>
			<u>380</u>
			b/f
			380
<b>P&amp;L Account for Period 1</b>			
purchases	500	sales	700
c/f	280	closing stock	80
	<u>780</u>		<u>780</u>
	<u>780</u>		<u>780</u>
to capital	280	b/f	280
	<u>280</u>		<u>280</u>
		<b>Stock</b>	
		from P&L	80

#### 18.1 BUSINESS 1 balance sheet at end of period 1

Assets	
Stock	80
Debtors	100
Bank	250
	<u>430</u>
Liabilities	
Creditors	( 50)
Net Assets	<u>£ 380</u>
Capital	<u>£ 380</u>

## Business 2

Business 2 has balanced its accounts as shown below at the end of Period 1 (its first period of trading). Transfer the relevant balances to and from a P&L Account for the period, and present the firm's balance sheet at the end of the period.

NOTE: at the end of Period 1, Business 2's closing stock is valued at £50.

**Response** (original entries are coloured grey)

<b>Capital</b>		<b>Bank</b>	
<i>loss</i>	100	<i>balance at end of period</i>	80
<i>c/f</i>	<u>100</u>		
	<u>200</u>		
		<i>b/f</i>	100
<b>Debtors</b>		<b>Sales</b>	
<i>balance at end of period</i>	250	<i>to P&amp;L</i>	<u>750</u>
		<i>balance at end of period</i>	<u>750</u>
<b>Purchases</b>		<b>Creditors</b>	
<i>balance at end of period</i>	<u>900</u>	<i>balance at end of period</i>	120
		<i>to P&amp;L</i>	<u>900</u>
<b>P&amp;L Account for Period 1</b>		<b>Stock</b>	
<i>Purchases</i>	900	<i>from P&amp;L</i>	50
	<u>900</u>		
<i>b/f loss</i>	<u>100</u>		
		<i>Sales</i>	750
		<i>closing stock</i>	50
		<i>c/f</i>	<u>100</u>
			<u>900</u>
		<i>to capital</i>	<u>100</u>

### 18.1 BUSINESS 2 balance sheet at end of period 1

Assets	
<b>Stock</b>	50
<b>Debtors</b>	<u>250</u>
	300
Liabilities	
<b>Creditors</b>	( 120)
<b>Bank</b>	<u>( 80)</u>
Net Assets	<u>£ 100</u>
<b>Capital</b>	<u>£ 100</u>



## Business 2

1. owner puts £800 cash into a business
2. business buys goods on credit for £600
3. business sells goods for £850 cash
4. business deposits £1 500 at the bank
5. owner takes £50 cash out of the business bank account for his own use
6. business sells goods for £200 on credit
7. business buys goods for £300, paying by cheque

NOTE goods value £300 remain in stock at the end of the period

### Response

<b>Cash</b>				<b>Capital</b>			
(1)	800	(4)	1 500	(5)	50	(1)	800
(3)	850	c/f	150	c/f	1 200	profit	450
	<u>1 650</u>		<u>1 650</u>		<u>1 250</u>		<u>1 250</u>
b/f	150					b/f	1 200
<b>Purchases</b>				<b>Promises from/to Supplier</b>			
(2)	600					(2)	600
(7)	300	c/f	900				
	<u>900</u>		<u>900</u>				
b/f	<u>900</u>	to P&L	<u>900</u>				
<b>Sales</b>				<b>Bank</b>			
		(3)	850	(4)	1 500	(5)	50
c/f	1 050	(6)	200			(7)	300
	<u>1 050</u>		<u>1 050</u>		<u>1 500</u>	c/f	1 150
to P&L	<u>1 050</u>	b/f	<u>1 050</u>	b/f	1 150		<u>1 500</u>
<b>P&amp;L Account</b>				<b>Promises from/to Customer</b>			
purchases	900	sales	1 050	(6)	200		
c/f	450	closing stock	300				
	<u>1 350</u>		<u>1 350</u>				
to capital	<u>450</u>	b/f profit	<u>450</u>				
				<b>Stock</b>			
				from P&L	300		

#### 18.2 BUSINESS 2 balance sheet at end of period 1

Assets	
Stock	300
Debtors	200
Bank	1 150
Cash	150
	<u>1 800</u>
Liabilities	
Creditors	( 600)
Net Assets	<u>£1 200</u>
Capital	<u>£1 200</u>

## 19.1 A drill to practise the treatment of opening and closing stock in Cost of Sales

### Business 1

At the start of a period, the opening balance sheet of Business 1 is as shown below:

19.1 BUSINESS 1 opening balance sheet	
Assets	
Stock	120
Trade Debtors	100
Bank	150
	<u>370</u>
Liabilities	
Trade Creditors	60
Loan	130
	<u>( 190)</u>
Net Assets	<u>£ 180</u>
Capital	<u>£ 180</u>

Put the opening balances on to the relevant accounts and record the following transactions:

1. business buys goods for £700 on credit
2. business sells goods on credit for £900
3. business receives cheque value £750 from trade debtor.

Balance the accounts at the end of the period and produce a P&L Account for the period and a balance sheet as at the end of the period.

NOTE: at the end of the period, Business 1's closing stock is valued at £160.

### Response

Stock	
b/f	120
to P&L	120
from P&L	160

Trade Debtors	
b/f	100
(2)	900
	<u>1 000</u>
b/f	250
(3)	750
c/f	250
	<u>1 000</u>

Bank	
b/f	150
(3)	750
	<u>900</u>
b/f	900
c/f	900

Trade Creditors	
c/f	760
	<u>760</u>
b/f	60
(1)	700
	<u>760</u>
b/f	760

Loan	
b/f	130

Capital	
c/f	420
	<u>420</u>
b/f	180
profit	240
	<u>420</u>
b/f	420

Purchases	
(1)	700
to P&L	700

Sales	
to P&L	900
(2)	900

P&L Account	
Purchases	700
opening stock	120
c/f	240
	<u>1 060</u>
to Capital	240
Sales	900
closing stock	160
	<u>1 060</u>
b/f profit	240

19.1 BUSINESS 1 closing balance sheet	
Assets	
Stock	160
Trade Debtors	250
Bank	900
	<u>1 310</u>
Liabilities	
Trade Creditors	760
Loan	130
	<u>( 890)</u>
Net Assets	<u>£ 420</u>
Capital	<u>£ 420</u>

## Business 2

At the start of a period, the opening balance sheet of Business 2 is as shown below:

19.1 BUSINESS 2 opening balance sheet	
Assets	
Stock	250
Trade Debtors	420
Cash	130
	<u>800</u>
Liabilities	
Trade Creditors	200
Loan	500
	<u>( 700)</u>
Net Assets	<u>£ 100</u>
Capital	<u>£ 100</u>

Put the opening balances on to the relevant accounts and record the following transactions:

1. business sells goods for £200 on credit
2. business buys goods on credit for £600
3. business pays supplier £700 by cheque
4. business receives cheque for £620 from customer.

Balance the accounts at the end of the period and produce a P&L Account for the period and a balance sheet as at the end of the period.

NOTE: at the end of the period, Business 2's closing stock is valued at £200.

## Response

Stock	
b/f	250
	<u>250</u>
to P&L	250
from P&L	200
	<u>200</u>

Trade Debtors	
b/f	420
(1)	200
	<u>620</u>
(4)	620
	<u>620</u>

Cash (including Bank)	
b/f	130
(4)	620
	<u>750</u>
b/f	50
(3)	700
c/f	50
	<u>750</u>

Trade Creditors	
(3)	700
c/f	100
	<u>800</u>
b/f	200
(2)	600
	<u>800</u>
b/f	100

Loan	
	b/f
	500

Capital	
loss from P&L	450
	<u>450</u>
b/f	350
	<u>350</u>
b/f	100
c/f	350
	<u>450</u>

Sales	
to P&L	200
	<u>200</u>
(1)	200
	<u>200</u>

Purchases	
(2)	600
	<u>600</u>
	to P&L
	<u>600</u>

P&L Account	
Purchases	600
opening stock	250
	<u>850</u>
b/f loss	450
	<u>450</u>
Sales	200
closing stock	200
c/f	450
	<u>850</u>
	to Capital
	<u>450</u>

19.1 BUSINESS 2 closing balance sheet	
Assets	
Stock	200
Cash and Bank	50
	<u>250</u>
Liabilities	
Trade Creditors	100
Loan	500
	<u>( 600)</u>
Net Assets	<u>£(350)</u>
Capital	<u>£(350)</u>

### NOTICE

1. how the accounts for Bank and Cash have been combined
2. how the loss incurred by this firm is large enough to wipe out the owner's entire investment and end with negative capital (where the firm will have a claim on the owner)



## 19.2 A drill to practise recording transactions in successive periods

For each separate business below, record the transactions of Period 1 on the relevant accounts, and produce a P&L Account for Period 1 and a balance sheet at the end of Period 1.

Then record the transactions of Period 2, and produce a P&L Account for Period 2 and a balance sheet at the end of Period 2.

### Business 1

#### Period 1

- owner puts £1 000 into a bank account for the business
- business buys goods on credit for £900
- business sells goods on credit for £1 100

NOTE: goods value £300 remain in stock at the end of the period.

#### Period 2

- business pays supplier £850 by cheque
- business receives cheque for £1 000 from customer
- business buys goods on credit for £1 200
- business sells goods on credit for £2 500

NOTE: goods value £800 remain in stock at the end of the period.

### Accounting for Period 1

<b>Bank</b>	
(1)	1 000

<b>Capital</b>	
c/f	1 500
	<u>1 500</u>
(1)	1 000
profit (1)	500
	<u>1 500</u>
b/f	1 500

<b>Purchases</b>	
(2)	900
	<u>900</u>
to P&L (1)	<u>900</u>

<b>Trade Creditor</b>	
	(2) 900

<b>Trade Debtor</b>	
(3)	1 100

<b>Sales</b>	
to P&L (1)	<u>1 100</u>
(3)	<u>1 100</u>

<b>P&amp;L Account for Period 1</b>			
purchases	900	sales	1 100
c/f	500	closing stock	300
	<u>1 400</u>		<u>1 400</u>
to capital	<u>500</u>	b/f profit	<u>500</u>

<b>Stock</b>	
from P&L (1)	300

<b>19.2 BUSINESS 1</b>	
<b>balance sheet at end of Period 1</b>	
<b>Assets</b>	
<b>Stock</b>	<b>300</b>
<b>Trade Debtors</b>	<b>1 100</b>
<b>Bank</b>	<b>1 000</b>
	<u>2 400</u>
<b>Liabilities</b>	
<b>Trade Creditors</b>	<b>( 900)</b>
<b>Net Assets</b>	<b><u>£1 500</u></b>
<b>Capital</b>	<b><u>£1 500</u></b>

## Business 1 continued – Period 2

### Period 1

- owner puts £1 000 into a bank account for the business
- business buys goods on credit for £900
- business sells goods on credit for £1 100

NOTE: goods value £300 remain in stock at the end of the period.

### Period 2

- business pays supplier £850 by cheque
- business receives cheque for £1 000 from customer
- business buys goods on credit for £1 200
- business sells goods on credit for £2 500

NOTE: goods value £800 remain in stock at the end of the period.

## Accounting for Period 2

<b>Bank</b>			
(1)	1 000	(4)	850
(5)	1 000	c/f	1 150
	<u>2 000</u>		<u>2 000</u>
b/f	1 150		

<b>Capital</b>			
c/f	1 500	(1)	1 000
	<u>1 500</u>	profit (1)	500
			<u>1 500</u>
		b/f	1 500
c/f	3 300	profit (2)	1 800
	<u>3 300</u>		<u>3 300</u>
		b/f	3 300

<b>Purchases</b>			
(2)	900	to P&L (1)	900
(6)	1 200	to P&L (2)	1 200
	<u>2 100</u>		<u>2 100</u>

<b>Trade Creditor</b>			
(4)	850	(2)	900
c/f	1 250	(6)	1 200
	<u>2 100</u>		<u>2 100</u>
		b/f	1 250

<b>Trade Debtor</b>			
(3)	1 100	(5)	1 000
(7)	2 500	c/f	2 600
	<u>3 600</u>		<u>3 600</u>
b/f	2 600		

<b>Sales</b>			
to P&L (1)	1 100	(3)	1 100
to P&L (2)	2 500	(7)	2 500
	<u>3 600</u>		<u>3 600</u>

<b>P&amp;L Account for Period 2</b>			
purchases	1 200	sales	2 500
opening stock	300	closing stock	800
c/f	1 800		
	<u>3 300</u>		<u>3 300</u>
to capital	1 800	b/f profit	1 800

<b>Stock</b>			
from P&L (1)	300	to P&L (2)	300
from P&L (2)	800		

<b>19.2 BUSINESS 1</b>	
<b>balance sheet at end of Period 2</b>	
<b>Assets</b>	
<b>Stock</b>	<b>800</b>
<b>Bank</b>	<b>1 150</b>
<b>Trade Debtor</b>	<b>2 600</b>
	<u><b>4 550</b></u>
<b>Liabilities</b>	
<b>Trade Creditors</b>	<b>(1 250)</b>
<b>Net Assets</b>	<u><b>£3 300</b></u>
<b>Capital</b>	<u><b>£3 300</b></u>

## Business 2

### Period 1

- owner puts £7 000 into a bank account for the business
- business buys goods on credit for £8 000
- business sells goods for £7 000, receiving payment by cheque

NOTE: goods value £90 remain in stock at the end of the period.

### Period 2

- business pays supplier £8 000 by cheque
- business buys goods for £6 000 on credit
- business sells goods for £10 000 on credit.

NOTE: goods value £1 500 remain in stock at the end of the period.

### Accounting for Period 1

<b>Bank</b>			
(1)	7 000		
(3)	7 000	c/f	14 000
	<u>14 000</u>		<u>14 000</u>
<b>b/f</b>	<b>14 000</b>		

<b>Capital</b>			
loss period 1	910	(1)	7 000
c/f	<u>6 090</u>		<u>7 000</u>
	<u>7 000</u>		<u>7 000</u>
		<b>b/f</b>	<b>6 090</b>

<b>Purchases</b>			
(2)	<u>8 000</u>	to P&L (1)	<u>8 000</u>

<b>Trade Creditor</b>			
		(2)	<u>8 000</u>

<b>Sales</b>			
to P&L (1)	<u>7 000</u>	(3)	<u>7 000</u>

<b>P&amp;L Account for Period 1</b>			
purchases	8 000	sales	7 000
		closing stock	90
		c/f	910
	<u>8 000</u>		<u>8 000</u>
<b>b/f loss</b>	<b>910</b>	<b>to capital</b>	<b>910</b>

<b>Stock</b>	
from P&L (1)	<b>90</b>

<b>19.2 BUSINESS 2</b>	
<b>balance sheet at end of Period 1</b>	
<b>Assets</b>	
<b>Stock</b>	<b>90</b>
<b>Bank</b>	<b><u>14 000</u></b>
	<b>14 090</b>
<b>Liabilities</b>	
<b>Trade Creditor</b>	<b><u>(8 000)</u></b>
<b>Net Assets</b>	<b><u>£6 090</u></b>
<b>Capital</b>	<b><u>£6 090</u></b>

## Business 2 continued – Period 2

### Period 1

- owner puts £7 000 into a bank account for the business
- business buys goods on credit for £8 000
- business sells goods for £7 000, receiving payment by cheque

NOTE: goods value £90 remain in stock at the end of the period.

### Period 2

- business pays supplier £8 000 by cheque
- business buys goods for £6 000 on credit
- business sells goods for £10 000 on credit.

NOTE: goods value £1 500 remain in stock at the end of the period.

## Accounting for Period 2

Bank			
(1)	7 000		
(3)	7 000	c/f	14 000
	<u>14 000</u>		<u>14 000</u>
b/f	<b>14 000</b>	(4)	8 000
	<u>14 000</u>	c/f	6 000
			<u>14 000</u>
b/f	<b>6 000</b>		

Capital			
loss period 1	910	(1)	7 000
c/f	<u>6 090</u>		<u>7 000</u>
	<u>7 000</u>		<u>7 000</u>
		b/f	<b>6 090</b>
c/f	<u>11 500</u>	profit period 2	5 410
	<u>11 500</u>		<u>11 500</u>
		b/f	<b>11 500</b>

Purchases			
(2)	<u>8 000</u>	to P&L (1)	<u>8 000</u>
(5)	<u>6 000</u>	to P&L (2)	<u>6 000</u>

Trade Creditor			
(4)	8 000	(2)	<b>8 000</b>
c/f	<u>6 000</u>	(5)	6 000
	<u>14 000</u>		<u>14 000</u>
		b/f	<b>6 000</b>

Sales			
to P&L (1)	<u>7 000</u>	(3)	7 000
to P&L (2)	<u>10 000</u>	(6)	<u>10 000</u>

P&L Account for Period 2			
purchases	6 000	sales	10 000
opening stock	90	closing stock	1 500
c/f	<u>5 410</u>		
	<u>11 500</u>		<u>11 500</u>
to capital	<u>5 410</u>	b/f profit	<u>5 410</u>

Stock			
from P&L (1)	<u>90</u>	to P&L (2)	<u>90</u>
from P&L (2)	<b>1 500</b>		

Trade Debtor	
(6)	<b>10 000</b>

19.2 BUSINESS 2	
balance sheet at end of Period 2	
Assets	
Stock	<b>1 500</b>
Bank	<b>6 000</b>
Trade Debtor	<b>10 000</b>
	<u>17 500</u>
Liabilities	
Trade Creditor	<b>(6 000)</b>
Net Assets	<u><b>£11 500</b></u>
Capital	<u><b>£11 500</b></u>

### Business 3

#### Period 1

- owner puts £2 500 into a bank account for the business
- business buys goods on credit from S for £2 000
- business sells goods on credit to C for £1 500

NOTE: goods value £400 remain in stock at the end of the period.

#### Period 2

- business sells goods on credit for £700
- business receives cheque for £2 100 from customer
- business buys goods on credit for £1 100
- business sells goods on credit for £1 300

NOTE: goods value £150 remain in stock at the end of the period.

### Accounting for Period 1

<b>Bank</b>	
(1)	<u>2 500</u>
<b>Capital</b>	
loss period 1	100
c/f	<u>2 400</u>
	<u>2 500</u>
	(1)
	2 500
	<u>2 500</u>
	<u>2 400</u>
	b/f
<b>Purchases</b>	
(2)	<u>2 000</u>
	to P&L (1)
	<u>2 000</u>
<b>Trade Creditor</b>	
	(2)
	2 000
<b>Trade Debtor</b>	
(3)	<u>1 500</u>
<b>Sales</b>	
to P&L (1)	<u>1 500</u>
	(3)
	<u>1 500</u>

<b>P&amp;L Account for Period 1</b>			
purchases	2 000	sales	1 500
		closing stock	400
		c/f	<u>100</u>
	<u>2 000</u>		<u>2 000</u>
b/f loss	<u>100</u>	to capital	<u>100</u>
<b>Stock</b>			
from P&L (1)	<u>400</u>		

<b>19.2 BUSINESS 3</b>	
<b>balance sheet at end of Period 1</b>	
<b>Assets</b>	
Stock	400
Trade debtor	1 500
Bank	<u>2 500</u>
	<u>4 400</u>
<b>Liabilities</b>	
Trade Creditor	<u>(2 000)</u>
Net Assets	<u>£2 400</u>
Capital	<u>£2 400</u>

## Business 3 continued – Period 2

### Period 1

- owner puts £2 500 into a bank account for the business
- business buys goods on credit from S for £2 000
- business sells goods on credit to C for £1 500

NOTE: goods value £400 remain in stock at the end of the period.

### Period 2

- business sells goods on credit for £700
- business receives cheque for £2 100 from customer
- business buys goods on credit for £1 100
- business sells goods on credit for £1 300

NOTE: goods value £150 remain in stock at the end of the period.

## Accounting for Period 2

Bank			
(1)	2 500		
(5)	2 100	c/f	4 600
	<u>4 600</u>		<u>4 600</u>
b/f	4 600		

Capital			
loss period 1	100	(1)	2 500
c/f	2 400		
	<u>2 500</u>		<u>2 500</u>
		b/f	2 400
c/f	3 050	profit period 2	650
	<u>3 050</u>		<u>3 050</u>
		b/f	3 050

Purchases			
(2)	2 000	to P&L (1)	2 000
(6)	1 100	to P&L (2)	1 100
	<u>1 100</u>		<u>1 100</u>

Trade Creditor			
c/f	3 100	(2)	2 000
	<u>3 100</u>	(6)	1 100
			<u>3 100</u>
		b/f	3 100

Trade Debtor			
(3)	1 500	(5)	2 100
(4)	700		
(7)	1 300	c/f	1 400
	<u>3 500</u>		<u>3 500</u>
b/f	1 400		

Sales			
to P&L (1)	1 500	(3)	1 500
	<u>1 500</u>	(4)	700
c/f	2 000	(7)	1 300
	<u>2 000</u>		<u>2 000</u>
to P&L (2)	2 000	b/f	2 000
	<u>2 000</u>		<u>2 000</u>

### P&L Account for Period 2

purchases	1 100	sales	2 000
opening stock	400	closing stock	150
c/f	650		
	<u>2 150</u>		<u>2 150</u>
to capital	650	b/f profit	650
	<u>650</u>		<u>650</u>

Stock			
from P&L (1)	400	to P&L (2)	400
from P&L (2)	150		
	<u>150</u>		<u>150</u>

19.2 BUSINESS 3	
balance sheet at end of Period 2	
Assets	
Stock	150
Bank	4 600
Trade Debtor	1 400
	<u>6 150</u>
Liabilities	
Trade Creditor	(3 100)
Net Assets	<u>£3 050</u>
Capital	<u>£3 050</u>

## 20.1 A drill to practise the effect of stock valuation on reported profit

### Case 1

In Period 1 a firm records purchases £800 and sales £900. State what would be the firm's profit or loss for Period 1 in each of the following circumstances:

1. if closing stock is valued at £75
2. if closing stock is valued at £50
3. if closing stock is valued at £25

### Response

The difference between sales and purchases in the period is £100, and this is Period 1 so there is no opening stock. If there had also been no closing stock (if the firm had sold all of its purchases), profit for the period would have been £100 (the difference between sales and purchases).

We are invited to consider examples where the firm has improved upon that result by saving some of its purchases for sale at a later date. Thus:

1. if closing stock is valued at £75
  - profit would be  $£100 + £75 = £175$
2. if closing stock is valued at £50
  - profit would be  $£100 + £50 = £150$
3. if closing stock is valued at £25
  - profit would be  $£100 + £25 = £125$

**Case 2**

A firm begins a period with opening stock valued at £100. During the period, the firm records purchases £450, and sales £600. State what would be the firm's profit or loss for the period in each of the following circumstances:

1. if closing stock is valued at £100
2. if closing stock is valued at £80
3. if closing stock is valued at £130

**Response**

The difference between sales and purchases is £150. But the firm did have opening stock value £100. The question now is whether the firm can show a bigger profit because it has saved some of its purchases (as would be shown by an increase in stock), or whether in order to make those sales, the firm has used up more than the value of goods it purchased in the period (as would be shown by a decrease in stock). Thus:

1. if closing stock is valued at £100
  - no change in stock would be indicated, and the firm's profit would be the difference between sales and purchases – that is, £150
2. if closing stock is valued at £80
  - profit would be £130 – that is to say £20 less than the profit in (1), reflecting the fact that the firm has used up £20 of stock as well as its purchases (closing stock of £80 is a reduction of £20 from the opening stock value of £100)
3. if closing stock is valued at £130
  - profit would be £180 – that is to say £30 more than the profit in (1), reflecting the fact that now the firm would have saved £30 of goods purchased (as shown by closing stock £130, against opening stock £100)



**Case 3**

During a period, a firm records purchases £500, and sales £700. State what would be the firm's profit or loss for the period in each of the following circumstances:

1. if stock levels increase by £50 during the period (i.e. if the value of closing stock is £50 greater than the value of opening stock)
2. if stock levels decrease by £30 during the period
3. if there is no increase or decrease in stocks over the course of the period

**Response**

The difference between sales and purchases is £200. The question is whether the firm's profit could be bigger than that because it has saved some of its purchases (as would be shown by an increase in stock), or whether its profit must be less than that because it has used up more than the value of goods it purchased in the period (as would be shown by a decrease in stock). Thus:

1. if stock levels increase by £50 during the period
  - profit would be  $£200 + £50 = £250$
2. if stock levels decrease by £30 during the period
  - profit would be  $£200 - £30 = £170$
3. if there is no increase or decrease in stocks over the course of the period
  - profit would be £200

**Case 4**

- In Period 1 a firm records purchases £400, and sales £400.
- In Period 2, the firm also records purchases £400 and sales £400.
- There is no closing stock at the end of Period 2.

State what would be the firm's profit or loss for Period 1 and for Period 2, in each of the following circumstances:

1. if there is no closing stock at the end of Period 1
2. if closing stock at the end of Period 1 is valued at £50
3. if closing stock at the end of Period 1 is valued at £100

**Response**

Beginning at the start of Period 1, the firm can have no opening stock, and there is no closing stock at the end of Period 2. There is no difference between sales and purchases in either of the two periods. Thus:

1. if there is no closing stock at the end of Period 1
  - profit for both periods would be nil. With no carry over of stock from one period to the next, all of the goods (and only the goods) purchased in each period must have been sold in the same period, and since purchases and sales were equal, there can be neither profit nor loss
2. if closing stock at the end of Period 1 is valued at £50
  - then the firm will have saved goods value £50 in Period 1, and used them to make sales in Period 2. Thus it would report a profit of £50 in Period 1, and a loss of £50 in Period 2
3. if closing stock at the end of Period 1 is valued at £100
  - then the firm will save £100 of purchases in Period 1, but will use those purchases to make sales in Period 2. For Period 1 therefore, the firm will report a profit of £100, while for Period 2, it will report a loss of £100

## 20.2 Exercises to consider some problems in accounting for stock

### 1.

Explain why it is easier to mis-state the value of closing stock in a set of accounts, than it is to mis-state the value of sales or purchases.

#### Response

Figures for sales and purchases in a set accounts are derived from the recording of transactions. Thus any arbitrary mis-statement of sales will throw the accounts out of balance, unless there is a compensating adjustment somewhere else in the accounts – thus if we wish to report a higher figure for sales, we must also report a higher figure for cash or for debtors. Likewise any arbitrary mis-statement of purchases will also throw the accounts out of balance unless there is a compensating adjustment in some other account(s), such as creditors or cash.

The figure for stock, however, does not arise from a transaction. The value involved is merely transferred from one account to another, and as long as the same figure used for both sides of the transfer, the accounts will remain in balance, no matter how mendacious the figure may be.

**2 (a)**

A firm sells a single line of stock, which it buys at constant prices. Purchases are recorded immediately in a Stock Account, and when goods are sold, their cost is transferred out of the Stock Account and into a Cost of Sales Account. In this way, the firm's Stock Account will always show an up-to-date cost of stock currently in the business.

a) Explain how this system would work, using entries on a set of T accounts.

**Response**

Imagine two transactions:

1. the firm buys 100 units at £1 each
2. the firm sells 20 units for £1.50 each (sale of 20 units @ £1.50 each = £30).

The purchase in transaction 1 will be recorded like this:

<i>Stock</i>		<i>Money or Promises</i>	
(1)	100	(1)	100

The sale in transaction 2 will be recorded like this:

<i>Money or Promises</i>		<i>Sales</i>	
(2)	30	(2)	30

So far this is very little different from the standard procedure. However, in this system, **at the same time as recording transaction 2**, the firm will **also** transfer the cost of the goods sold (in this case, cost of 20 units @ £1 each = £20) OUT of the Stock Account and IN to a Cost of Sales Account, like this:

<i>Stock</i>		<i>Cost of Sales</i>	
(1)	100	from Stock	20
		to Cost of Sales	20

The balance on the Stock Account should now always show the cost of goods held in stock at any time, while the balance on the Cost of Sales Account can be transferred to the P&L Account at the end of the period to determine profit.

**2 (b)**

A firm sells a single line of stock, which it buys at constant prices. Purchases are recorded immediately in a Stock Account, and when goods are sold, their cost is transferred out of the Stock Account and into a Cost of Sales Account. In this way, the firm's Stock Account will always show an up-to-date cost of stock currently in the business.

b) This system involves no account for purchases. How would you be able to use information from the accounts to determine the value of purchases in a period?

**Response**

*Normally*, we must start with the figure for purchases and adjust it to find the cost of goods sold by

- adding the cost of any goods in stock at the start of the period, and
- taking out the cost of any goods held in stock at the end of the period.

In this system, we start with the figure for Cost of Sales, given in the accounts, and adjust it to find the cost of purchases in the period by

- adding the cost of any goods purchased in the period but not yet sold (closing stock), and
- taking out the cost of any goods that were not purchased in the period because they were already present in opening stock.

**2 (c)**

A firm sells a single line of stock, which it buys at constant prices. Purchases are recorded immediately in a Stock Account, and when goods are sold, their cost is transferred out of the Stock Account and into a Cost of Sales Account. In this way, the firm's Stock Account will always show an up-to-date cost of stock currently in the business.

c) Why do you think that this, or a similar system of accounting for stock, is not more widely used?

**Response**

This system will only work if the cost of the goods sold is known *at the time of every sale*. Where, as in our description, the firm buys goods for resale at constant prices, this requirement is easily met (because all goods of the same kind will have been acquired at the same cost). But when purchase prices for identical goods vary throughout a period, as they do in real life, in most cases it would involve an unacceptable level of effort to attach a different cost to each individual unit of stock.

**21.1 A drill to practise transferring relevant balances to and from the P&L Account**

At the end of a period, each of the firms below has balanced its accounts as shown.

For each separate firm, transfer the relevant balances to prepare a full-length P&L Account, transfer the profit or loss for the period to the Capital Account, and prepare a closing balance sheet.

**Firm A**

NOTE: closing stock is valued at £75

**Response**

original entries in black    transfers in blue

<b>Sales</b> <u>to P&amp;L 700</u> <u>b/f 700</u>	<b>Purchases</b> <u>b/f 500</u> <u>to P&amp;L 500</u>	<b>Stock</b> <u>b/f 50</u> <u>to P&amp;L 50</u> <i>from P&amp;L 75</i>
<b>Wages</b> <u>b/f 80</u> <u>to P&amp;L 80</u>	<b>Electricity</b> <u>b/f 40</u> <u>to P&amp;L 40</u>	<b>Rent</b> <u>b/f 60</u> <u>to P&amp;L 60</u>
<b>Interest</b> <u>b/f 15</u> <u>to P&amp;L 15</u>	<b>Debtors</b> <u>b/f 95</u>	<b>Bank</b> <u>b/f 26</u>
<b>Creditors</b> <u>b/f 86</u>	<b>Capital</b> <u>c/f 110</u> <u>b/f 80</u> <u>110</u> <u>profit 30</u> <u>110</u> <u>110</u> <u>b/f 110</u>	

<b>P&amp;L Account</b>			
<i>purchases</i>	500	<i>sales</i>	700
<i>opening stock</i>	50	<i>closing stock</i>	75
<i>c/f</i>	225		
	<u>775</u>		<u>775</u>
<i>wages</i>	80	<i>b/f gross profit</i>	225
<i>electricity</i>	40		
<i>rent</i>	60		
<i>c/f</i>	45		
	<u>225</u>		<u>225</u>
<i>interest</i>	15	<i>b/f</i>	
<i>c/f</i>	30	<i>operating profit</i>	45
	<u>45</u>		<u>45</u>
<i>to capital</i>	30	<i>b/f net profit</i>	30
	<u>30</u>		<u>30</u>

<b>21.1 Firm A</b>	
<b>balance sheet at end of Period</b>	
Assets	
<b>Stock</b>	75
<b>Debtors</b>	95
<b>Bank</b>	26
	<u>196</u>
Liabilities	
<b>Creditors</b>	( 86)
Net Assets	<u>£ 110</u>
<b>Capital</b>	<u>£ 110</u>



**Firm B**

NOTE: closing stock is valued at £130

**Response**

original entries in black    transfers in blue

<b>Sales</b> <u>to P&amp;L 800</u> <u>b/f 800</u>	<b>Purchases</b> <u>b/f 750</u> <u>to P&amp;L 750</u>	<b>Stock</b> <u>b/f 40</u> <u>to P&amp;L 40</u> <i>from P&amp;L 130</i>
<b>Wages</b> <u>b/f 70</u> <u>to P&amp;L 70</u>	<b>Electricity</b> <u>b/f 30</u> <u>to P&amp;L 30</u>	<b>Rent</b> <u>b/f 20</u> <u>to P&amp;L 20</u>
<b>Interest</b> <u>b/f 25</u> <u>to P&amp;L 25</u>	<b>Debtors</b> <u>b/f 110</u>	<b>Bank</b> <u>b/f 45</u>
<b>Creditors</b> <u>b/f 200</u>	<b>Capital</b> <i>loss 5</i> <u>b/f 90</u> <i>c/f 85</i> <u>90</u> <u>90</u> <u>85</u>	

<b>P&amp;L Account</b>			
<i>purchases</i>	750	<i>sales</i>	800
<i>opening stock</i>	40	<i>closing stock</i>	130
<i>c/f</i>	140		
	<u>930</u>		<u>930</u>
<i>wages</i>	70	<i>b/f gross profit</i>	140
<i>electricity</i>	30		
<i>rent</i>	20		
<i>c/f</i>	20		
	<u>140</u>		<u>140</u>
<i>interest</i>	25	<i>b/f</i>	
	<u>25</u>	<i>operating profit</i>	20
		<i>c/f</i>	5
			<u>25</u>
<i>b/f net loss</i>	5	<i>to capital</i>	5
	<u>5</u>		<u>5</u>

<b>21.1 Firm B</b>	
<b>balance sheet at end of Period</b>	
Assets	
<b>Stock</b>	130
<b>Debtors</b>	110
<b>Bank</b>	<u>45</u>
	285
Liabilities	
<b>Creditors</b>	<u>( 200 )</u>
Net Assets	<u>£ 85</u>
<b>Capital</b>	<u>£ 85</u>

**Firm C**

NOTE: closing stock is valued at £53

**Response**

original entries in black    transfers in blue

<b>Electricity</b> <div> <div>b/f 32</div> <div>to P&amp;L 32</div> </div>	<b>Purchases</b> <div> <div>b/f 300</div> <div>to P&amp;L 300</div> </div>	<b>Creditors</b> <div> <div></div> <div>b/f 37</div> </div>
<b>Wages</b> <div> <div>b/f 168</div> <div>to P&amp;L 168</div> </div>	<b>Capital</b> <div> <div>c/f 86</div> <div>b/f 66</div> <div>profit 20</div> <div>86</div> <div>86</div> </div>	<b>Rent</b> <div> <div>b/f 40</div> <div>to P&amp;L 40</div> </div>
<b>Interest</b> <div> <div>b/f 8</div> <div>to P&amp;L 8</div> </div>	<b>Debtors</b> <div> <div>b/f 82</div> </div>	<b>Bank</b> <div> <div></div> <div>b/f 12</div> </div>
<b>Sales</b> <div> <div>to P&amp;L 560</div> <div>b/f 560</div> </div>	<b>Stock</b> <div> <div>b/f 45</div> <div>to P&amp;L 45</div> <div>from P&amp;L 53</div> </div>	

  

P&L Account			
<b>purchases</b>	300	<b>sales</b>	560
<b>opening stock</b>	45	<b>closing stock</b>	53
<b>c/f</b>	268		
	613		613
<b>wages</b>	168	<b>b/f gross profit</b>	268
<b>electricity</b>	32		
<b>rent</b>	40		
<b>c/f</b>	28		
	268		268
<b>interest</b>	8	<b>b/f</b>	
<b>c/f</b>	20	<b>operating profit</b>	28
	28	<b>c/f</b>	
	28		28
<b>to capital</b>	20	<b>b/f net profit</b>	20

  

21.1 Firm C	
balance sheet at end of Period	
Assets	
<b>Stock</b>	53
<b>Debtors</b>	82
	135
Liabilities	
<b>Creditors</b>	37
<b>Bank Overdraft</b>	12
	( 49)
Net Assets	£ 86
<b>Capital</b>	£ 86

## **21.2 Drills to practise recording transactions and preparing final accounts**

For each separate business below, put the opening balances on to the accounts, record the given transactions, and go through all of the relevant procedures to produce a P&L Account for the period, and a balance sheet at the end of the period.

*You should assume that all inputs (except stock) are consumed in the period.*

## Business A

21.2 BUSINESS A opening balance sheet	
Assets	
<b>Stock</b>	<b>2 500</b>
<b>Debtors</b>	<b>500</b>
<b>Bank</b>	<b>1 000</b>
	<b>4 000</b>
Liabilities	
<b>Creditors</b>	<b>( 800)</b>
<b>Net Assets</b>	<b>£3 200</b>
<b>Capital</b>	<b>£3 200</b>

### Transactions

1. buys goods on credit for £5 000
2. sells goods for £8 000 receiving payment by cheque
3. receives cheque value £250 from trade debtor
4. pays rent £800 by cheque
5. pays supplier £4 800 by cheque

NOTE: closing stock is valued at £3 000

## Response

opening balances in black entries and transfers in blue

Stock			
b/f	2 500	to P&L	2 500
from P&L	3 000		
Debtors			
b/f	500	(3)	250
		c/f	250
	500		500
b/f	250		
Bank			
b/f	1 000	(4)	800
(2)	8 000	(5)	4 800
(3)	250	c/f	3 650
	9 250		9 250
b/f	3 650		
Creditors			
(5)	4 800	b/f	800
c/f	1 000	(1)	5 000
	5 800		5 800
		b/f	1 000
Capital			
		b/f	3 200
c/f	5 900	profit	2 700
	5 900		5 900
		b/f	5 900

Purchases			
(1)	5 000	to P&L	5 000
Sales			
to P&L	8 000	(2)	8 000
Rent			
(4)	800	to P&L	800
P&L Account			
purchases	5 000	sales	8 000
opening stock	2 500	closing stock	3 000
c/f	3 500		
	11 000		11 000
rent	800	b/f	
c/f	2 700	gross profit	3 500
	3 500		3 500
to capital	2 700	b/f	
		operating profit	2 700

21.2 BUSINESS A closing balance sheet	
Assets	
<b>Stock</b>	<b>3 000</b>
<b>Trade Debtors</b>	<b>250</b>
<b>Bank</b>	<b>3 650</b>
	<b>6 900</b>
Liabilities	
<b>Trade Creditors</b>	<b>(1 000)</b>
<b>Net Assets</b>	<b>£5 900</b>
<b>Capital</b>	<b>£5 900</b>

**Business B**

21.2 BUSINESS B opening balance sheet		
Assets		
<b>Stock</b>		<b>1 000</b>
<b>Debtors</b>		<b>2 000</b>
		<b>3 000</b>
Liabilities		
<b>Creditors</b>	<b>1 300</b>	
<b>Bank</b>	<b>700</b>	
		<b>(2 000)</b>
Net Assets		<b>£1 000</b>
<b>Capital</b>		<b>£1 000</b>

## Transactions

1. buys goods on credit for £3 500
2. sells goods for £6 000 on credit
3. receives electricity bill for £1 700
4. receives telephone bill for £300
5. pays Telephone Company £300 by cheque

NOTE: closing stock is valued at £400

**Response**

opening balances in black entries and transfers in blue

Stock			
b/f	1 000	to P&L	1 000
from P&L	400		

Debtors			
b/f	2 000		
(2)	6 000	c/f	8 000
	8 000		8 000
b/f	8 000		

Creditors			
		b/f	1 300
c/f	4 800	(1)	3 500
	4 800		4 800
		b/f	4 800

Bank			
		b/f	700
c/f	1 000	(5)	300
	1 000		1 000
		b/f	1 000

Capital			
loss	100	b/f	1 000
c/f	900		
	1 000		1 000
		b/f	900

Purchases			
(1)	3 500	to P&L	3 500

Sales			
to P&L	6 000	(2)	6 000

Electricity			
(3)	1 700	to P&L	1 700

Electricity Company		
	(3)	1 700

Telephone		
(4)	300	to P&L
		300

Telephone Company		
(5)	300	(4)
		300

P&L Account			
purchases	3 500	sales	6 000
opening stock	1 000	closing stock	400
c/f	1 900		
	6 400		6 400
electricity	1 700	b/f	
telephone	300	gross profit	1 900
	2 000	c/f	100
			2 000
b/f			
operating loss	100	to capital	100

21.2 BUSINESS B closing balance sheet		
Assets		
<b>Stock</b>		<b>400</b>
<b>Trade Debtors</b>		<b>8 000</b>
		<b>8 400</b>
Liabilities		
<b>Creditors</b>	<b>4 800</b>	
<b>Bank</b>	<b>1 000</b>	
<b>electricity Co</b>	<b>1 700</b>	
		<b>(7 500)</b>
Net Assets		<b>£ 900</b>
<b>Capital</b>		<b>£ 900</b>

## Business C - Data

21.2 BUSINESS C opening balance sheet	
Assets	
Stock	1 700
Debtors	3 000
	<u>4 700</u>
Liabilities	
Creditors	2 400
Bank	600
	<u>(3 000)</u>
Net Assets	<u>£1 700</u>
Capital	<u>£1 700</u>

### Transactions

1. buys goods on credit for £16 500
2. sells goods on credit for £27 000
3. receives rent demand for £1 300
4. borrows £5 000 from ABC finance, receiving the money by cheque
5. pays landlord £1 200 by cheque
6. pays interest £250 by cheque
7. pays salaries £1 800 by cheque
8. receives electricity bill for £700
9. pays interest £100 by cheque
10. repays £3 000 by cheque to ABC finance

NOTE: closing stock is valued at £1 500

**Business C - Response**

Stock			
b/f	1 700	to P&L	1 700
from P&L	1 500		

Debtors			
b/f	3 000		
(2)	27 000	c/f	30 000
	<u>30 000</u>		<u>30 000</u>
b/f	30 000		

Creditors			
		b/f	2 400
c/f	18 900	(1)	16 500
	<u>18 900</u>		<u>18 900</u>
		b/f	18 900

Bank			
(4)	5 000	b/f	600
		(5)	1 200
		(6)	250
		(7)	1 800
		(9)	100
c/f	1 950	(10)	3 000
	<u>6 950</u>		<u>6 950</u>
		b/f	1 950

Capital			
		b/f	1 700
c/f	7 850	profit	6 150
	<u>7 850</u>		<u>7 850</u>
		b/f	7 850

Purchases			
(1)	16 500	to P&L	16 500

Sales			
to P&L	27 000	(2)	27 000

Rent			
(3)	1 300	to P&L	1 300

Landlord			
(5)	1 200	(3)	1 300
c/f	100		
	<u>1 300</u>		<u>1 300</u>
		b/f	100

ABC Finance			
(10)	3 000	(4)	5 000
c/f	2 000		
	<u>5 000</u>		<u>5 000</u>
		b/f	2 000

Interest			
(6)	250		
(9)	100	c/f	350
	<u>350</u>		<u>350</u>
b/f	350	to P&L	350

Salaries			
(7)	1 800	to P&L	1 800

Electricity			
(8)	700	to P&L	700

Electricity Company			
		(8)	700

P&L Account for Period ..			
purchases	16 500	sales	27 000
opening stock	1 700	closing stock	1 500
c/f	10 300		
	<u>28 500</u>		<u>28 500</u>
rent	1 300	b/f	
salaries	1 800	gross profit	10 300
electricity	700		
c/f	6 500		
	<u>10 300</u>		<u>10 300</u>
interest	350	b/f	
c/f	6 150	operating profit	6 500
	<u>6 500</u>		<u>6 500</u>
to capital	6 150	b/f	
		net profit	6 150

**21.2 BUSINESS C  
closing balance sheet**

Assets	
Stock	1 500
Trade Debtors	30 000
	<u>31 500</u>
Liabilities	
Creditors	18 900
Bank	1 950
Landlord	100
ABC Finance	2 000
Electricity Co	700
	<u>(23 650)</u>
Net Assets	<u>£7 850</u>
Capital	<u>£7 850</u>

## Business D - Data

21.2 BUSINESS D opening balance sheet		
Assets		
Stock		1 500
Debtors		<u>30 000</u>
		31 500
Liabilities		
Creditors	18 900	
Bank	1 950	
Landlord	100	
Electricity Co	700	
ABC Finance	<u>2 000</u>	
		(23 650)
Net Assets		<u>£7 850</u>
Capital		<u>£7 850</u>

### Transactions

1. receives cheque for £24 000 from customer
2. pays supplier £18 000 by cheque
3. pays £100 interest to ABC Finance
4. repays ABC Finance £2 000 by cheque
5. pays £300 interest on bank overdraft
6. buys goods on credit for £27 000
7. sells goods on credit for £29 300
8. receives rent demand for £1 300
9. pays landlord £1 400 by cheque
10. receives electricity bill for £1 000
11. pays Electricity Co £1 700 by cheque
12. pays wages £3 200 by cheque
13. receives cheque for £30 000 from customer
14. pays supplier £20 000 by cheque
15. owner takes £1 500 out of business bank for his own use

NOTE: closing stock is valued at £5 000



**Business D - Response**

Stock			
b/f	1 500	to P&L	1 500
from P&L	5 000		

Debtors			
b/f	30 000	(1)	24 000
(7)	29 300	(13)	30 000
		c/f	5 300
	<u>59 300</u>		<u>59 300</u>
b/f	5 300		

Creditors			
(2)	18 000	b/f	18 900
(14)	20 000	(6)	27 000
c/f	7 900		
	<u>45 900</u>		<u>45 900</u>
		b/f	7 900

Bank			
(1)	24 000	b/f	1 950
(13)	30 000	(2)	18 000
		(3)	100
		(4)	2 000
		(5)	300
		(9)	1 400
		(11)	1 700
		(12)	3 200
		(14)	20 000
		(15)	1 500
		c/f	3 850
	<u>54 000</u>		<u>54 000</u>
b/f	3 850		

Landlord			
(9)	1 400	b/f	100
		(8)	1 300
	<u>1 400</u>		<u>1 400</u>

Electricity Company			
(11)	1 700	b/f	700
		(10)	1 000
	<u>1 700</u>		<u>1 700</u>

ABC Finance			
(4)	2 000	b/f	2 000

Capital			
drawings	1 500	b/f	7 850
loss	100		
c/f	6 250		
	<u>7 850</u>		<u>7 850</u>
		b/f	6 250

Interest			
(3)	100		
(5)	300	c/f	400
	<u>400</u>		<u>400</u>
b/f	400	to P&L	400

Purchases			
(6)	27 000	to P&L	27 000

Sales			
to P&L	29 300	(7)	29 300

Rent			
(8)	1 300	to P&L	1 300

Electricity			
(10)	1 000	to P&L	1 000

Wages			
(12)	3 200	to P&L	3 200

P&L Account for Period			
purchases	27 000	sales	29 300
opening stock	1 500	closing stock	5 000
c/f	5 800		
	<u>34 300</u>		<u>34 300</u>
rent	1 300	b/f	
electricity	1 000	gross profit	5 800
wages	3 200		
c/f	300		
	<u>5 800</u>		<u>5 800</u>
interest	400	b/f	
	<u>400</u>	operating profit	300
b/f		c/f	100
net loss	100		<u>400</u>
	<u>100</u>	to capital	100

**21.2 BUSINESS D**  
**closing balance sheet**

Assets	
<b>Stock</b>	<b>5 000</b>
<b>Trade Debtors</b>	<b>5 300</b>
<b>Bank</b>	<b>3 850</b>
	<u><b>14 150</b></u>
Liabilities	
<b>Creditors</b>	<b>(7 900)</b>
<b>Net Assets</b>	<u><b>£6 250</b></u>
<b>Capital</b>	<u><b>£6 250</b></u>

## 22.1 Drills to compare P&L Account and Income Statement formats

Present the information in each P&L Account or Income Statement below in its alternative format

### Business A

A: PROFIT & LOSS ACCOUNT			
purchases	20 900	sales	30 000
opening stock	2 250	closing stock	2 150
c/f	9 000		
	<u>32 150</u>		<u>32 150</u>
wages	1 400	b/f gross profit	9 000
electricity	600		
insurance	300		
advertising	200		
c/f	6 500		
	<u>9 000</u>		<u>9 000</u>
interest payable	150	b/f operating profit	6 500
c/f	6 350		
	<u>6 500</u>		<u>6 500</u>
to capital	<u>6 350</u>	b/f net profit	<u>6 350</u>

A: INCOME STATEMENT		
	£	£
Sales		30 000
purchases	20 900	
opening stock	2 250	
closing stock	(2 150)	
Cost of Sales		<u>(21 000)</u>
Gross Profit		9 000
wages	1 400	
electricity	600	
insurance	300	
advertising	200	
		<u>(2 500)</u>
Operating Profit		6 500
interest payable		<u>( 150)</u>
Net Profit		<u>£6 350</u>

### Business B

B: PROFIT & LOSS ACCOUNT			
purchases	11 000	sales	14 800
opening stock	1 200	closing stock	1 700
c/f	4 300		
	<u>16 500</u>		<u>16 500</u>
wages	2 400	b/f gross profit	4 300
rent	1 000		
transport	800		
c/f	100		
	<u>4 300</u>		<u>4 300</u>
interest payable	125	b/f operating profit	100
		c/f	25
	<u>125</u>		<u>125</u>
b/f net loss	<u>25</u>	to capital	<u>25</u>

B: INCOME STATEMENT		
	£	£
Sales		14 800
purchases	11 000	
opening stock	1 200	
closing stock	(1 700)	
Cost of Sales		<u>(10 500)</u>
Gross Profit		4 300
wages	2 400	
rent	1 000	
transport	800	
		<u>(4 200)</u>
Operating Profit		100
interest payable		<u>( 125)</u>
Net Loss		<u>£(25)</u>

**Business C**

C: INCOME STATEMENT			C: PROFIT & LOSS ACCOUNT			
	£	£				
Sales		50 000	purchases	36 000	sales	50 000
purchases	36 000		opening stock	4 000	closing stock	5 000
opening stock	4 000		c/f	15 000		
closing stock	<u>(5 000)</u>			<u>55 000</u>		<u>55 000</u>
Cost of Sales		<u>(35 000)</u>	wages	10 000	b/f gross profit	15 000
Gross Profit		15 000	rent	2 000		
wages	10 000		insurance	1 000		
rent	2 000		advertising	500		
insurance	1 000		c/f	1 500		
advertising	<u>500</u>			<u>15 000</u>		<u>15 000</u>
		<u>(13 500)</u>	interest payable	2 000	b/f operating profit	1 500
Operating Profit		1 500			c/f	500
interest payable		<u>(2 000)</u>		<u>2 000</u>		<u>2 000</u>
Net Loss		<u>£(500)</u>	b/f net loss	500	to capital	500

**Business D**

D: PROFIT & LOSS ACCOUNT				D: INCOME STATEMENT		
				£	£	
purchases	32 000	sales	46 600	Sales		46 600
opening stock	3 600	closing stock	4 000	purchases	32 000	
c/f	15 000			opening stock	3 600	
	<u>50 600</u>		<u>50 600</u>	closing stock	<u>(4 000)</u>	
wages	11 350	b/f gross profit	15 000	Cost of Sales		<u>(31 600)</u>
rent	2 650	c/f	900	Gross Profit		15 000
insurance	1 900			wages	11 350	
	<u>15 900</u>		<u>15 900</u>	rent	2 650	
b/f operating loss	900	interest receivable	1 200	insurance	<u>1 900</u>	
interest payable	100					<u>(15 900)</u>
c/f	200			Operating Loss		( 900)
	<u>1 200</u>		<u>1 200</u>	interest payable		( 100)
to capital	200	b/f net profit	200	interest receivable		1 200
				Net Profit		<u>£ 200</u>

**Business E**

E: INCOME STATEMENT			E: PROFIT & LOSS ACCOUNT			
	£	£				
Sales		87 400	purchases	65 500	sales	87 400
purchases	65 500		opening stock	5 700	closing stock	4 200
opening stock	5 700		c/f	20 400		
closing stock	(4 200)			<u>91 600</u>		<u>91 600</u>
Cost of Sales		(67 000)	wages	12 150	b/f gross profit	20 400
Gross Profit		20 400	electricity	1 850		
wages	12 150		transport	4 400		
electricity	1 850		c/f	2 000		
transport	4 400			<u>20 400</u>		<u>20 400</u>
		(18 400)			b/f operating profit	2 000
Operating Profit		2 000	interest payable	3 000	interest receivable	700
interest payable		(3 000)			c/f	300
interest receivable		700		<u>3 000</u>		<u>3 000</u>
Net Loss		£(300)	b/f net loss	300	to capital	300

## **23.0 There are no drills or exercises on this chapter**

## 24.1 A drill to practise extending the trial balance

For each trial balance given below, copy the relevant balances into the appropriate columns of the extended trial balance, and determine the firm's profit or loss for the period.

### Business A

NOTE: closing stock is valued at £1 490.

original balances in black    extended figures in blue and red

BUSINESS A	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		7 500		7 500		
purchases	5 700		5 700			
stock	1 100		1 100	1 490	1 490	
wages	1 230		1 230			
rent	120		120			
insurance	56		56			
electricity	144		144			
interest	40		40			
bank	900				900	
trade debtors	850				850	
trade creditors		740				740
loan		400				400
capital		1 500				1 500
profit			600			600
total	<u>10 140</u>	<u>10 140</u>	<u>8 990</u>	<u>8 990</u>	<u>3 240</u>	<u>3 240</u>

**Business B**

NOTE: closing stock is valued at £1 000.

original balances in black    extended figures in blue and red

BUSINESS B	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		7 500		7 500		
purchases	6 300		6 300			
stock	1 300		1 300	1 000	1 000	
wages	1 100		1 100			
rent	450		450			
advertising	100		100			
interest	40		40			
bank		600				600
trade debtors	1 400				1 400	
trade creditors		800				800
capital		1 790				1 790
<b>loss</b>				790	790	
total	<u>10 690</u>	<u>10 690</u>	<u>9 290</u>	<u>9 290</u>	<u>3 190</u>	<u>3 190</u>

## Business C

NOTE: closing stock is valued at £950.

The accountant of Business C is uncertain as to whether or not input A has been consumed. Compare the P&L Account and balance sheet prepared under the assumption that input A has been consumed, with the same prepared under the assumption that input A remains in the business as an asset.

### Response 1

If input A has been **consumed**, it should be shown as an **expense** in the P&L Account:

BUSINESS C	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		3 400		3 400		
purchases	2 300		2 300			
stock	800		800	950	950	
wages	780		780			
<b>input A</b>	100		<b>100</b>			
interest	20		20			
bank	500				500	
trade debtors	900				900	
trade creditors		800				800
capital		1 200				1 200
<b>profit</b>			<b>350</b>			<b>350</b>
total	<u>5 400</u>	<u>5 400</u>	<u>4 350</u>	<u>4 350</u>	<u>2 350</u>	<u>2 350</u>

The P&L Account and balance sheet will therefore look like this:

P&L Account			
<i>purchases</i>	2 300	<i>sales</i>	3 400
<i>opening stock</i>	800	<i>closing stock</i>	950
<i>c/f</i>	<u>1 250</u>		
	<u>4 350</u>		<u>4 350</u>
		<i>b/f</i>	
<i>wages</i>	780	<i>gross profit</i>	1 250
<b><i>input A</i></b>	<b>100</b>		
<i>c/f</i>	<u>370</u>		
	<u>1 250</u>		<u>1 250</u>
		<i>b/f</i>	
<i>interest</i>	20	<i>operating profit</i>	370
<i>c/f</i>	<u>350</u>		
	<u>370</u>		<u>370</u>
<i>to capital</i>	<u>350</u>	<b><i>b/f net profit</i></b>	<b><u>350</u></b>

24.1 Business C Balance Sheet	
Assets	
<b>Stock</b>	<b>950</b>
<b>Trade Debtors</b>	<b>900</b>
<b>Bank</b>	<b>500</b>
	<u>2 350</u>
Liabilities	
<b>Trade Creditors</b>	<b>( 800)</b>
<b>Net Assets</b>	<b><u>£1 550</u></b>
<b>Capital</b>	<b><u>£1 550</u></b>



## Business C - continued

### Response 2

If input A is **not consumed**, it should be shown as an **asset** in the balance sheet:

BUSINESS C	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		3 400		3 400		
purchases	2 300		2 300			
stock	800		800	950	950	
wages	780		780			
input A	100				100	
interest	20		20			
bank	500				500	
trade debtors	900				900	
trade creditors		800				800
capital		1 200				1 200
profit			450			450
total	<u>5 400</u>	<u>5 400</u>	<u>4 350</u>	<u>4 350</u>	<u>2 450</u>	<u>2 450</u>

The P&L Account and balance sheet will therefore look like this:

P&L Account			
<i>purchases</i>	2 300	<i>sales</i>	3 400
<i>opening stock</i>	800	<i>closing stock</i>	950
<i>c/f</i>	<u>1 250</u>		
	<u>4 350</u>		<u>4 350</u>
		<i>b/f</i>	
<i>wages</i>	780	<i>gross profit</i>	1 250
<i>c/f</i>	<u>470</u>		
	<u>1 250</u>		<u>1 250</u>
		<i>b/f</i>	
<i>interest</i>	20	<i>operating profit</i>	470
<i>c/f</i>	<u>450</u>		
	<u>470</u>		<u>470</u>
<i>to capital</i>	<u>450</u>	<i>b/f net profit</i>	<u>450</u>

24.1 Business C Balance Sheet	
Assets	
<b>Stock</b>	950
<b>Input A</b>	<b>100</b>
<b>Trade Debtors</b>	900
<b>Bank</b>	<u>500</u>
	2 450
Liabilities	
<b>Trade Creditors</b>	<u>( 800)</u>
<b>Net Assets</b>	<u><u>£1 650</u></u>
<b>Capital</b>	<u><u>£1 650</u></u>

## 24.2 An exercise on the relation between the Income Statement and the balance sheet, and the trial balance

Reconstruct the trial balance on which the Income Statement and balance sheet below are based. (This is a somewhat artificial exercise, but useful for understanding.)

ABC Income Statement for the period ended 30 June 2050		
	£	£
SALES		23 500
purchases	15 000	
opening stock	3 000	
closing stock	(2 500)	
COST of SALES		(15 500)
GROSS PROFIT		8 000
rent	2 200	
electricity	1 350	
salaries	3 450	
		(7 000)
OPERATING PROFIT		1 000
interest receivable		200
interest payable		( 300)
NET PROFIT		<u>£ 900</u>

ABC Balance Sheet as at 30 June 2050		
	£	£
ASSETS		
stock		2 500
trade receivables		4 300
finance debtor		1 500
bank		200
		<u>8 500</u>
LIABILITIES		
trade payables	3 600	
finance payable	1 400	
		<u>(5 000)</u>
NET ASSETS		<u>£3 500</u>
CAPITAL		<u>£3 500</u>

### Response

Exercise 24.2	Trial Balance	
	DR	CR
sales		23 500
purchases	15 000	
<b>stock</b>	<b>3 000</b>	
rent	2 200	
electricity	1 350	
salaries	3 450	
interest receivable		200
interest payable	300	
trade receivables	4 300	
finance debtor	1 500	
bank	200	
trade payables		3 600
finance payable		1 400
<b>capital</b>		<b>2 600</b>
total	<u>31 300</u>	<u>31 300</u>

Notice how:

1. stock in the trial balance is opening stock,

and

2. capital in the trial balance is before any adjustment for the profit or loss made in the period

**25.0 There are no drills or exercises on this chapter.**

Put each list of balances below into the form of a standard balance sheet.

<b>26.1 Firm A</b>	
<b>List of Balances</b>	
bank	30
bank overdraft	10
capital	250
cash	20
debtors	40
land and buildings	25
long-term loan	200
plant & machinery	325
stock	60
trade creditors	40

26.1 FIRM A: BALANCE SHEET			
	£	£	£
<b>Tangible Fixed Assets</b>			
Land & Buildings			25
Plant & Machinery			325
			<u>350</u>
<b>Current Assets</b>			
Stock		60	
Debtors		40	
Bank		30	
Cash		20	
		<u>150</u>	
<b>Current Liabilities</b>			
Trade Creditors	40		
Bank Overdraft	10		
	<u></u>	(50)	
<b>Net Current Assets</b>			
			<u>100</u>
			450
<b>Long Term Liabilities</b>			
Loan			(200)
<b>NET ASSETS</b>			
			<u>£250</u>
<b>CAPITAL</b>			
			<u>£250</u>

26.1 Firm B	
List of Balances	
trade creditors	50
stock	45
plant & machinery	150
long-term loan	300
land and buildings	340
debtors	60
capital	215
bank overdraft	45
bank	15

<b>26.1 FIRM B: BALANCE SHEET</b>			
	£	£	£
<b>Tangible Fixed Assets</b>			
Land & Buildings			340
Plant & Machinery			150
			<u>490</u>
<b>Current Assets</b>			
Stock		45	
Debtors		60	
Bank		15	
		<u>120</u>	
<b>Current Liabilities</b>			
Trade Creditors	50		
Bank Overdraft	45		
		<u>(95)</u>	
<b>Net Current Assets</b>			<u>25</u>
			515
<b>Long Term Liabilities</b>			
Loan			(300)
<b>NET ASSETS</b>			<u><u>£215</u></u>
<b>CAPITAL</b>			<u>£215</u>

## 26.2 Some exercises on the significance of balance sheet categories

### 1.

What, if anything would be the advantage gained by classifying current liabilities as non-current liabilities? (How would it affect the interpretation of the firm's balance sheet?)

#### Response

Falsely classifying current liabilities as non-current liabilities would make the relevant date of payment appear to be further into the future, and therefore less worrisome for the firm now. The balance sheet would appear to be stronger, and the firm would appear to be more creditworthy – more easily able to borrow or acquire goods or services on credit.

### 2.

What, if anything would be the advantage gained by classifying current assets as non-current assets?

#### Response

Because they pass quickly through the firm, current assets are not generally considered suitable as security for long-term loans. Falsely classifying current assets as non-current assets would therefore perhaps enable the firm to raise a long-term loan more easily or at a lower rate of interest.

**3.**

A firm has the option of borrowing to finance the purchase of a fixed asset, or leasing the fixed asset for a regular annual payment. What presentational difference would the choice make to the balance sheet?

**Response**

A firm which borrowed to purchase a fixed asset would have to show the asset in the balance sheet (as a non-current asset), and would have to show the liability to repay the loan as a liability in the balance sheet.

A firm which leased the fixed asset for a regular annual payment would be able to show only the annual lease payment as an expense in the P&L Account.

Note: it may be argued that in certain circumstances leasing an asset is *in effect* the same as borrowing to finance the purchase of the asset (as, for example, when the firm leasing the asset is not permitted to return the asset, and is contractually bound to keep making lease payments for a number of years, come what may). In such circumstances, accountants seem to be agreed that the firm leasing the asset *should* in any case show both the asset and the liability to make lease payments in its balance sheet.

**4.**

State, giving your reasons, how you would finance each of the following (use cash savings, overdraft, short-term loan, long-term loan):

- a) to purchase a stock of goods for immediate resale
- b) to pay for a holiday
- c) to buy a house
- d) to pay for professional training

**Response**

- a) to purchase a stock of goods for immediate resale**, most firms would favour using cash savings or an overdraft. An overdraft could be repaid as and when the goods were sold – unlike a short-term loan, for which repayment might fall due before the stock was sold, and which might involve penalty clauses for early repayment. It is unlikely in any case that a lender would offer a long-term loan for this purpose.
- b) to pay for a holiday**, a prudent individual would use cash savings. It is rash to incur any avoidable liabilities solely to pay for current consumption.
- c) to buy a house**, most people would favour using a long-term loan. A house is generally an expensive asset which cannot be paid for out of cash savings, and which entails borrowing a sum that cannot quickly be repaid. In addition, a house is a long-lived asset which would deliver benefits over the long term, to match the obligation to make payments under the loan agreement.
- d) to pay for professional training**: in principle, professional training may confer long-term benefits in the form of increased earnings, and therefore could be financed by a long-term loan, like a house. However, it is unlikely that any lender would agree to make a very long-term loan for this purpose, and most professional training is in fact probably financed by short-term loans, or by the cash savings of related parties (parents, etc.).

## 27.1 Drills to practise basic accounting for depreciation

For each separate business below, show

1. a Fixed Asset Account and an account for money or promises (M&P), plus
2. relevant extracts concerning the fixed asset from
  - the P&L Account for YEAR 1 and the balance sheet at the end of YEAR 1
  - the P&L Account for YEAR 2 and the balance sheet at the end of YEAR 2
  - the P&L Account for YEAR 3 and the balance sheet at the end of YEAR 3

### Business 1

YEAR 1: the business buys a fixed asset at a cost of £10 000.

During the year, the fixed asset loses £2 000 of value.

YEAR 2: the fixed asset loses a further £1 500 of value.

YEAR 3: the fixed asset loses a further £1 000 of value.

		<i>Fixed Asset</i>				<i>P&amp;L 1</i>	
cost	10 000	to P&L 1	2 000			depreciation	2 000
		to P&L 2	1 500				
		to P&L 3	1 000				
						<i>P&amp;L 2</i>	
						depreciation	1 500
						<i>P&amp;L 3</i>	



## Business 2

YEAR 1: a fixed asset is purchased at cost £24 000.

During the year, the fixed asset loses £4 000 of value.

YEAR 2: the fixed asset depreciates by £3 000.

YEAR 3: the fixed asset depreciates by £2 000.

Fixed Asset			
cost	24 000	to P&L 1	4 000
		to P&L 2	3 000
		to P&L 3	2 000

  

M&P	
payment	24 000

  

P&L 1	
depreciation	4 000

  

P&L 2	
depreciation	3 000

  

P&L 3	
depreciation	2 000

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£20 000	£17 000	£15 000

### Business 3

YEAR 1: a fixed asset is purchased at cost £4 000.

At the end of the year, the fixed asset is valued at £3 200.

YEAR 2: at the end of the year the fixed asset is valued at £2 800.

YEAR 3: at the end of the year the fixed asset is valued at £2 500.

Fixed Asset			
cost	4 000	to P&L 1	800
		to P&L 2	400
		to P&L 3	300

  

M&P	
payment	4 000

  

P&L 1	
depreciation	800

  

P&L 2	
depreciation	400

  

P&L 3	
depreciation	300

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£3 200	£2 800	£2 500

## Business 4

The business purchases a fixed asset at cost £16 000 in YEAR 1. The fixed asset is estimated to lose £4 000 of value in each year of use.

Fixed Asset		P&L 1	
cost	16 000	depreciation	4 000
	to P&L 1		
	4 000		
	to P&L 2		
	4 000		
	to P&L 3		
	4 000		
M&P		P&L 2	
	payment	depreciation	4 000
	16 000		
		P&L 3	
		depreciation	4 000

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£12 000	£8 000	£4 000

## Business 5

The business purchases a fixed asset in YEAR 1 for £20 000. In each year of use, the fixed asset is estimated to lose 10% of its value at the start of that year.

Fixed Asset		P&L 1	
cost	20 000	depreciation	2 000
	to P&L 1		
	2 000		
	to P&L 2		
	1 800		
	to P&L 3		
	1 620		
M&P		P&L 2	
	payment	depreciation	1 800
	20 000		
		P&L 3	
		depreciation	1 620

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£18 000	£16 200	£14 580

## Business 6

The business purchases a fixed asset in YEAR 1 for £15 000. The business estimates that the fixed asset will be used for ten years, after which it will be thrown away with no value.

Fixed Asset		P&L 1	
cost	15 000	depreciation	1 500
	to P&L 1		
	1 500		
	to P&L 2		
	1 500		
	to P&L 3		
	1 500		
M&P		P&L 2	
	payment	depreciation	1 500
	15 000		
		P&L 3	
		depreciation	1 500

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£13 500	£12 000	£10 500

## Business 7

A fixed asset is acquired in YEAR 1 for £100 000. The business estimates that the fixed asset will be used for eight years, after which it will be sold for £20 000.

Fixed Asset			
cost	100 000	to P&L 1	10 000
		to P&L 2	10 000
		to P&L 3	10 000

  

M&P	
payment	100 000

  

P&L 1	
depreciation	10 000

  

P&L 2	
depreciation	10 000

  

P&L 3	
depreciation	10 000

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£90 000	£80 000	£70 000

## Business 8

The business purchases a fixed asset at a cost of £50 000 in YEAR 1. At the end of YEAR 1 the fixed asset is valued at £44 000.

At the end of YEAR 2 it is valued at £43 000, and at the end of YEAR 3 it is valued at £33 000.

Fixed Asset			
cost	50 000	to P&L 1	6 000
		to P&L 2	1 000
		to P&L 3	10 000

  

M&P	
payment	50 000

  

P&L 1	
depreciation	6 000

  

P&L 2	
depreciation	1 000

  

P&L 3	
depreciation	10 000

BALANCE SHEET VALUES	at end of Year 1	at end of Year 2	at end of Year 3
Fixed Asset	£44 000	£43 000	£33 000

## 27.2 Some exercises on the nature of depreciation

### 1.

Simon inherits £20 000 from his uncle, and uses it to buy a fixed asset in order to start a new business. At the end of the accounting period, Simon has attracted no customers, and has engaged in no further transactions. Has he made a profit or a loss for the period? Explain your answer.

#### Response

Simon starts with £20 000 of value in the form of money. When he buys the fixed asset, he exchanges £20 000 of money for £20 000 of fixed asset. There is no profit or loss at this stage. However, it is reasonable to assume that a fixed asset will lose value over the course of time, even if it is not used. Thus Simon will end the period with a fixed asset which embodies less than £20 000 of value. He will therefore make a loss in the period.

### 2.

What are the objects of accounting for depreciation?

#### Response

The **main** object of providing for depreciation is to match the cost of holding or using a fixed asset against the revenues derived from its use.

### 3.

What would happen if we failed to account for depreciation?

#### Response

Failure to account for depreciation would mean that a firm's reported profits would be overstated. Certain activities might appear to be more profitable than they actually are, and, under the mistaken impression that profits are bigger than they actually are, owners of firms might withdraw and spend too much value from the firm, and thus unwittingly reduce the value of their investment and consume their capital.



**28.1 Drills to practise using the Provision for Depreciation Account**

For each separate business and fixed asset below, show:

1. a Fixed Asset Cost Account and an account for money or promises (M&P)
2. a Provision for Depreciation Account

plus relevant extracts concerning the fixed assets from

- the P&L Account for YEAR 1 and the balance sheet at the end of YEAR 1
- the P&L Account for YEAR 2 and the balance sheet at the end of YEAR 2
- the P&L Account for YEAR 3 and the balance sheet at the end of YEAR 3

## Business 1

YEAR 1: the business buys a pressing machine at a cost of £10 000, and a delivery van at cost of £15 000.

During the year, the pressing machine loses £2 000 of value, and the delivery van loses £3 000 of value.

YEAR 2: the machine depreciates by a further £1 500, and the van loses £2 000 of value.

YEAR 3: the machine loses a further £1 500 of value, and the van depreciates by £500.

<i>M&amp;P</i>		<i>P&amp;L 1</i>	
	payment 25 000		
<i>Pressing Machine – Cost</i>			
cost	10 000	depreciation for year	5 000
<i>Delivery Van – Cost</i>			
cost	15 000		
<i>Machine – Provision for Depreciation</i>		<i>P&amp;L 2</i>	
	to P&L 1 2 000	depreciation for year	3 500
	to P&L 2 1 500		
	to P&L 3 1 500	<i>P&amp;L 3</i>	
<i>Van – Provision for Depreciation</i>			
	to P&L 1 3 000	depreciation for year	2 000
	to P&L 2 2 000		
	to P&L 3 500		

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
<b>Pressing Machine</b>			
cost	10 000	10 000	10 000
less provision for depreciation	(2 000)	(3 500)	(5 000)
<b>Net Book Value</b>	<u>8 000</u>	<u>6 500</u>	<u>5 000</u>
<b>Delivery Van</b>			
cost	15 000	15 000	15 000
less provision for depreciation	(3 000)	(5 000)	(5 500)
<b>Net Book Value</b>	<u>12 000</u>	<u>10 000</u>	<u>9 500</u>
<b>Total Net Book Value</b>	<u>£20 000</u>	<u>£16 500</u>	<u>£14 500</u>

## Business 2

YEAR 1: fixtures and fittings are purchased at a cost of £4 000, and plant and machinery is purchased at a cost of £8 000. At the end of the year, the fixtures and fittings are valued at £3 200, and the plant and machinery is valued at £6 000.

YEAR 2: at the end of the year, fixtures and fittings are valued at £2 800, and plant and machinery is valued at £5 000.

YEAR 3: at the end of the year, fixtures and fittings and plant and machinery are both valued at £2 000.

M&P	
payment	12 000
Fixtures and Fittings – Cost	
cost	4 000
Plant & Machinery – Cost	
cost	8 000
F&F – Provision for Depreciation	
to P&L 1	800
to P&L 2	400
to P&L 3	800
P&M – Provision for Depreciation	
to P&L 1	2 000
to P&L 2	1 000
to P&L 3	3 000

P&L 1	
depreciation for year	2 800
P&L 2	
depreciation for year	1 400
P&L 3	
depreciation for year	3 800

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
Fixtures & Fittings			
cost	4 000	4 000	4 000
less provision for depreciation	(800)	(1 200)	(2 000)
Net Book Value	<u>3 200</u>	<u>2 800</u>	<u>2 000</u>
Plant & Machinery			
cost	8 000	8 000	8 000
less provision for depreciation	(2 000)	(3 000)	(6 000)
Net Book Value	<u>6 000</u>	<u>5 000</u>	<u>2 000</u>
Total Net Book Value	<u>£9 200</u>	<u>£7 800</u>	<u>£4 000</u>

### Business 3

YEAR 1: the business buys a truck at cost £100 000 and a refrigeration unit at cost £16 000.

The truck is driven hard and is expected to lose £30 000 of value in each year of use. The refrigeration unit is expected to lose £2 000 of value in each year of use.

<i>M&amp;P</i>		<i>P&amp;L 1</i>	
	payment 116 000		
<i>Truck – Cost</i>			
cost	100 000	depreciation for year	32 000
<i>Refrigeration Unit – Cost</i>			
cost	16 000		
<i>Truck – Provision for Depreciation</i>		<i>P&amp;L 2</i>	
	to P&L 1 30 000	depreciation for year	32 000
	to P&L 2 30 000		
	to P&L 3 30 000	<i>P&amp;L 3</i>	
<i>Refrigeration Unit – Prov'n for Dep'n</i>			
	to P&L 1 2 000	depreciation for year	32 000
	to P&L 2 2 000		
	to P&L 3 2 000		

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
Truck			
cost	100 000	100 000	100 000
less provision for depreciation	(30 000)	(60 000)	(90 000)
Net Book Value	70 000	40 000	10 000
Refrigeration Unit			
cost	16 000	16 000	16 000
less provision for depreciation	(2 000)	(4 000)	(6 000)
Net Book Value	14 000	12 000	10 000
Total Net Book Value	£84 000	£52 000	£20 000

## Business 4

YEAR 1: the business purchases a grinding machine and a polishing machine, each at a cost of £20 000.

In each year of use, the grinding machine is expected to lose 10% of its original value or cost, while the polishing machine is expected to lose 10% of its value at the start of that year.

<i>M&amp;P</i>		<i>P&amp;L 1</i>	
	payment 40 000		
<i>Grinding Machine – Cost</i>			
cost	20 000	depreciation for year	4 000
<i>Polishing Machine – Cost</i>			
cost	20 000		
<i>Grinding M/c – Provision for Dep'n</i>		<i>P&amp;L 2</i>	
	to P&L 1 2 000	depreciation for year	3 800
	to P&L 2 2 000		
	to P&L 3 2 000		
<i>Polishing M/c – Provision for Dep'n</i>		<i>P&amp;L 3</i>	
	to P&L 1 2 000	depreciation for year	3 620
	to P&L 2 1 800		
	to P&L 3 1 620		

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
<b>Grinding Machine</b>			
cost	20 000	20 000	20 000
less provision for depreciation	(2 000)	(4 000)	(6 000)
Net Book Value	18 000	16 000	14 000
<b>Polishing Machine</b>			
cost	20 000	20 000	20 000
less provision for depreciation	(2 000)	(3 800)	(5 420)
Net Book Value	18 000	16 200	14 580
<b>Total Net Book Value</b>	<b>£36 000</b>	<b>£32 200</b>	<b>£28 580</b>

## Business 5

YEAR 1: the business acquires a steam generator at a cost of £100 000, and a steam hammer at a cost of £20 000.

The business estimates that the steam generator will be used for 15 years before it is scrapped with a value of £10 000. The steam hammer will be used for 10 years, after which it will be sold for £5 000.

M&P		
	payment	120 000
Steam Generator – Cost		
cost	100 000	
Steam Hammer – Cost		
cost	20 000	
Steam Generator – Prov'n for Dep'n		
	to P&L 1	6 000
	to P&L 2	6 000
	to P&L 3	6 000
Steam Hammer – Prov'n for Dep'n		
	to P&L 1	1 500
	to P&L 2	1 500
	to P&L 3	1 500

  

P&L 1	
depreciation for year	7 500
P&L 2	
depreciation for year	7 500
P&L 3	
depreciation for year	7 500

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
Steam Generator			
cost	100 000	100 000	100 000
less provision for depreciation	<u>(6 000)</u>	<u>(12 000)</u>	<u>(18 000)</u>
Net Book Value	<u>94 000</u>	<u>88 000</u>	<u>82 000</u>
Steam Hammer			
cost	20 000	20 000	20 000
less provision for depreciation	<u>(1 500)</u>	<u>(3 000)</u>	<u>(4 500)</u>
Net Book Value	<u>18 500</u>	<u>17 000</u>	<u>15 500</u>
Total Net Book Value	<u>£112 500</u>	<u>£105 000</u>	<u>£97 500</u>

## Business 6

YEAR 1: the business buys a diamond drilling machine for £120 000. the business estimates that it will be possible to use the machine for 200 000 cutting operations before it is sold for £20 000 and replaced.

The machine is used to perform the following number of cutting operations in the first three years of its life:

- Year 1 30 000 cutting operations
- Year 2 20 000 cutting operations
- Year 3 40 000 cutting operations

<div>M&amp;P</div> <div>payment 120 000</div>		<div>P&amp;L 1</div> <div>depreciation for year 15 000</div>	
<div>Drilling Machine – Cost</div> <div>cost 120 000</div>		<div>P&amp;L 2</div> <div>depreciation for year 10 000</div>	
<div>Drilling Machine – Prov'n for Dep'n</div> <div>to P&amp;L 1 15 000</div> <div>to P&amp;L 2 10 000</div> <div>to P&amp;L 3 20 000</div>		<div>P&amp;L 3</div> <div>depreciation for year 20 000</div>	

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
Drilling Machine			
cost	120 000	120 000	120 000
less provision for depreciation	<u>(15 000)</u>	<u>(25 000)</u>	<u>(45 000)</u>
Net Book Value	<u>105 000</u>	<u>95 000</u>	<u>75 000</u>

## Business 7

YEAR 1: the business buys a truck for £50 000. The business estimates that the truck will be driven for 500 000 miles before it is scrapped with no value.

The mileage driven by the truck in the first three years of its life is:

Year 1	100 000 miles
Year 2	140 000 miles
Year 3	80 000 miles

<table> <tr> <th colspan="2">M&amp;P</th></tr> <tr> <td>payment</td><td>120 000</td></tr> </table> <table> <tr> <th colspan="2">Truck – Cost</th></tr> <tr> <td>cost</td><td>50 000</td></tr> </table> <table> <tr> <th colspan="2">Truck – Provision for Depreciation</th></tr> <tr> <td>to P&amp;L 1</td><td>10 000</td></tr> <tr> <td>to P&amp;L 2</td><td>14 000</td></tr> <tr> <td>to P&amp;L 3</td><td>8 000</td></tr> </table>	M&P		payment	120 000	Truck – Cost		cost	50 000	Truck – Provision for Depreciation		to P&L 1	10 000	to P&L 2	14 000	to P&L 3	8 000	<table> <tr> <th colspan="2">P&amp;L 1</th></tr> <tr> <td>depreciation for year</td><td>10 000</td></tr> </table> <table> <tr> <th colspan="2">P&amp;L 2</th></tr> <tr> <td>depreciation for year</td><td>14 000</td></tr> </table> <table> <tr> <th colspan="2">P&amp;L 3</th></tr> <tr> <td>depreciation for year</td><td>8 000</td></tr> </table>	P&L 1		depreciation for year	10 000	P&L 2		depreciation for year	14 000	P&L 3		depreciation for year	8 000
M&P																													
payment	120 000																												
Truck – Cost																													
cost	50 000																												
Truck – Provision for Depreciation																													
to P&L 1	10 000																												
to P&L 2	14 000																												
to P&L 3	8 000																												
P&L 1																													
depreciation for year	10 000																												
P&L 2																													
depreciation for year	14 000																												
P&L 3																													
depreciation for year	8 000																												

BALANCE SHEET VALUES	at end of Year 1 £	at end of Year 2 £	at end of Year 3 £
Truck			
cost	50 000	50 000	50 000
less provision for depreciation	<u>(10 000)</u>	<u>(24 000)</u>	<u>(32 000)</u>
Net Book Value	<u>£40 000</u>	<u>£26 000</u>	<u>£18 000</u>



## 28.2 More drills to practise using the Provision for Depreciation Account

### Business A

At 30 November, Year 10, the balance sheet of a business showed the following in relation to fixed assets:

	£	£
<b>machinery</b>		
cost	80 000	
provision for depreciation	<u>(28 800)</u>	
<b>Net Book Value</b>		51 200
<b>motor vehicles</b>		
cost	40 000	
provision for depreciation	<u>(24 000)</u>	
<b>Net Book Value</b>		16 000

The business believes that in each year of use, the machinery loses 20% of its value at the start of that year, while the motor vehicles lose 20% of their original value.

Show relevant extracts concerning the fixed assets from the P&L Account for the year to 30 November, Year 11, and from the balance sheet at 30 November, Year 11.

### Response

#### P&L Account for y/e 30 Nov, Year 11

<b>depreciation:</b>	
<b>machinery</b>	10 240
<b>motor vehicles</b>	8 000

#### Balance Sheet extract at end of Year 11

	£	£
<b>machinery</b>		
cost	80 000	
provision for depreciation	<u>(39 040)</u>	
<b>Net Book Value</b>		40 960
<b>motor vehicles</b>		
cost	40 000	
provision for depreciation	<u>(32 000)</u>	
<b>Net Book Value</b>		8 000

## Business B

At the end of the year to 31 December, Year 20, the trial balance of a business included the following:

	DR	CR
	£	£
fixed asset cost	90 000	
provision for depreciation		18 000

The business believes that the fixed asset loses 10% of its original value (cost) in every year of use.

Show relevant extracts concerning the fixed assets from the P&L Account for the year to 31 December, Year 20, and from the balance sheet at 30 December, Year 20. (Notice that the trial balance is drawn up *before* transfers to the P&L Account.)

## Response

### P&L Account for y/e 31 Dec, Year 20

<i>depreciation</i>	<b>9 000</b>
---------------------	--------------

### Balance Sheet extract at end of Year 20

	£
<b>fixed asset</b>	
cost	90 000
provision for depreciation	<u>(27 000)</u>
<b>Net Book Value</b>	<b>63 000</b>

**28.3 An exercise on accounts concerning depreciation**

Apart from looking at their different names, how could you tell the difference between a Provision for Depreciation Account and a Depreciation Expense Account?

**Response**

The Provision for Depreciation Account should carry a CR balance (it shows the value to be deducted from Fixed Asset Cost, which is an asset).

The Depreciation Expense Account should carry a DR balance (as an expense, it shows the fixed asset value consumed in the period).

## 29.1 Drills to practise using the Fixed Asset Disposal Account

For each example below, show:

1. the Fixed Asset Cost Account
2. the Provision for Depreciation Account
3. the Fixed Asset Disposal Account and an account for money or promises (M&P)
4. an extract from the P&L Account in the year of disposal

### Business 1

A fixed asset in the accounts of a business at cost £18 000 less depreciation £8 000, is disposed of with disposal proceeds £7 000.

### Response

Fixed Asset Cost			
b/f	18 000	to Fixed Asset Disposal Account	18 000

  

Provision for Depreciation			
to Fixed Asset Disposal Account	8 000	b/f	8 000

  

Fixed Asset Disposal			
Fixed Asset Cost	18 000	disposal value	7 000
		provision for depreciation	8 000
		to P&L	3 000
	<u>18 000</u>		<u>18 000</u>

  

Money and Promises			
payment received	7 000		

  

P&L			
loss on disposal	3 000		

## Business 2

A fixed asset in the accounts of a business at cost £33 000 less provision for depreciation £29 000, is disposed of with disposal proceeds £5 000.

### Response

Fixed Asset Cost			
b/f	33 000	to Fixed Asset Disposal Account	33 000

  

Provision for Depreciation			
to Fixed Asset Disposal Account	29 000	b/f	29 000

  

Fixed Asset Disposal			
Fixed Asset Cost	33 000	disposal value	5 000
		provision for depreciation	29 000
to P&L	1 000		
	<u>34 000</u>		<u>34 000</u>

  

Money and Promises			
		payment received	5 000

  

P&L	
	profit on disposal 1 000

### Business 3

A fixed asset in the accounts of a business at cost £14 000 less accumulated depreciation £12 000, is scrapped with no value.

### Response

Fixed Asset Cost			
b/f	14 000	to Fixed Asset Disposal Account	14 000

  

Provision for Depreciation			
to Fixed Asset Disposal Account	12 000	b/f	12 000

  

Fixed Asset Disposal			
Fixed Asset Cost	14 000	disposal value	nil
		provision for depreciation	12 000
		to P&L	2 000
	<u>14 000</u>		<u>14 000</u>

  

Money and Promises			
payment received	nil		

  

P&L	
loss on disposal	2 000

Note: the nil payment received would not normally be shown in the accounts.

### Business 4

A fixed asset in the accounts of a business at cost £27 000 less provision for depreciation £17 000, is destroyed in an accident. The insurers of the business agree to pay a claim of £9 000.

### Response

Fixed Asset Cost			
b/f	27 000	to Fixed Asset Disposal Account	27 000

  

Provision for Depreciation			
to Fixed Asset Disposal Account	17 000	b/f	17 000

  

Fixed Asset Disposal			
Fixed Asset Cost	27 000	disposal value	9 000
		provision for depreciation	17 000
		to P&L	1 000
	<u>27 000</u>		<u>27 000</u>

  

Insurance Company			
		promise received	9 000

  

P&L			
		loss on disposal	1 000

## Business 5

A fixed asset in the accounts of a business at cost £70 000 less provision for depreciation £50 000, is stolen. The insurers of the business agree to pay a claim of £25 000.

### Response

Fixed Asset Cost			
b/f	70 000	to Fixed Asset Disposal Account	70 000

  

Provision for Depreciation			
to Fixed Asset Disposal Account	50 000	b/f	50 000

  

Fixed Asset Disposal			
Fixed Asset Cost	70 000	disposal value	25 000
		provision for depreciation	50 000
to P&L	5 000		
	<u>75 000</u>		<u>75 000</u>

  

Insurance Company			
promise received	25 000		

  

P&L	
	profit on disposal 5 000



**29.2 More drills to practise accounting for fixed asset disposals**

For each example below, state the double entry necessary to account for the disposal, and show the Fixed Asset Disposal Account, with an extract from the P&L Account in the year of disposal.

### Business 1

A fixed asset in the accounts of a business at cost £5 000 less accumulated depreciation £4 000, is disposed of with disposal proceeds £750.

### Response

double entry:

DR	money or promises	£750	
CR	Fixed Asset Disposal		£750

  

DR	Fixed Asset Disposal	£5 000	
CR	Fixed Asset Cost		£5 000

  

DR	Provision for Depreciation	£4 000	
CR	Fixed Asset Disposal		£4 000

  

DR	P&L Account – loss on disposal	£250	
CR	Fixed Asset Disposal		£250

accounts:

<i>Fixed Asset Disposal</i>			
<i>Fixed Asset Cost</i>	5 000	<i>disposal value</i>	750
		<i>provision for depreciation</i>	4 000
		<i>to P&amp;L</i>	250
	<u>5 000</u>		<u>5 000</u>

<i>P&amp;L Account extract</i>	
<i>loss on disposal</i>	250

## Business 2

A fixed asset in the accounts of a business at cost £15 000 less depreciation £8 000, is disposed of with disposal proceeds £7 500.

### Response

double entry:

DR	money or promises	£7 500	
CR	Fixed Asset Disposal		£7 500

DR	Fixed Asset Disposal	£15 000	
CR	Fixed Asset Cost		£15 000

DR	Provision for Depreciation	£8 000	
CR	Fixed Asset Disposal		£8 000

DR	Fixed Asset Disposal	£500	
CR	P&L Account – profit on disposal		£500

accounts:

<i>Fixed Asset Disposal</i>			
<i>Fixed Asset Cost</i>	15 000	<i>disposal value</i>	7 500
		<i>provision for depreciation</i>	8 000
<i>to P&amp;L</i>	500		
	<u>15 500</u>		<u>15 500</u>

<i>P&amp;L Account extract</i>	
	<i>profit on disposal</i> 500

### Business 3

A fixed asset in the accounts of a business at cost £42 000 less provision for depreciation £38 000, is disposed of with nil value.

#### Response

double entry:

DR	Fixed Asset Disposal	£42 000	
CR	Fixed Asset Cost		£42 000

  

DR	Provision for Depreciation	£38 000	
CR	Fixed Asset Disposal		£38 000

  

DR	P&L Account – loss on disposal	£4 000	
CR	Fixed Asset Disposal		£4 000

accounts:

<i>Fixed Asset Disposal</i>			
<i>Fixed Asset Cost</i> 42 000			
		<i>provision for depreciation</i>	38 000
		<i>to P&amp;L</i>	4 000
	<u>42 000</u>		<u>42 000</u>

<i>P&amp;L Account extract</i>	
<i>loss on disposal</i>	4 000

### Business 4

A fixed asset in the accounts of a business at cost £27 000 less provision for depreciation £9 000, is destroyed in an accident, at which time it is not insured.

### Response

double entry:

DR	Fixed Asset Disposal	£27 000	
CR	Fixed Asset Cost		£27 000
DR	Provision for Depreciation	£9 000	
CR	Fixed Asset Disposal		£9 000
DR	P&L Account – loss on disposal	£18 000	
CR	Fixed Asset Disposal		£18 000

accounts:

<i>Fixed Asset Disposal</i>	
<i>Fixed Asset Cost</i> 27 000	
	<i>provision for depreciation</i> 9 000
	<i>to P&amp;L</i> 18 000
<u>27 000</u>	<u>27 000</u>
<i>P&amp;L Account extract</i>	
<i>loss on disposal</i> 18 000	

### Business 5

A fixed asset in the accounts of a business at cost £120 000 less provision for depreciation £70 000, is damaged in an accident, and sold for scrap £10 000. The insurers of the business agree to pay a claim of £35 000.

### Response

double entry:

DR	money or promises for scrap	£10 000	
DR	promise from Insurance Company	£35 000	
CR	Fixed Asset Disposal		£45 000

  

DR	Fixed Asset Disposal	£120 000	
CR	Fixed Asset Cost		£120 000

  

DR	Provision for Depreciation	£70 000	
CR	Fixed Asset Disposal		£70 000

  

DR	P&L Account – loss on disposal	£5 000	
CR	Fixed Asset Disposal		£5 000

accounts:

<i>Fixed Asset Disposal</i>			
<i>Fixed Asset Cost</i> 120 000		<i>disposal value</i>	45 000
		<i>provision for depreciation</i>	70 000
		<i>to P&amp;L</i>	5 000
<u>120 000</u>			<u>120 000</u>

<i>P&amp;L Account extract</i>	
<i>loss on disposal</i>	5 000

**29.3 A drill to practise accounting for loss in value throughout the life of a fixed asset**

For each example below, show

1. the Fixed Asset Cost Account;
2. the Provision for Depreciation Account;
3. the Fixed Asset Disposal Account and an account for money or promises (M&P);
4. relevant extracts concerning the fixed asset from the P&L Accounts of YEAR 1, YEAR 2 and YEAR 3.

NOTE: assume no depreciation is charged in the year of disposal.

## Business 1

A fixed asset is purchased in YEAR 1 at a cost of £130 000. The business uses the fixed asset for two years, believing that it loses £30 000 of value in the first year of use, and £20 000 in the second year.

In Year 3 the fixed asset is sold for £70 000.

## Response

Fixed Asset Cost	
original purchase	130 000
	<u>130 000</u>
to Fixed Asset Disposal Account	130 000
	<u>130 000</u>
Provision for Depreciation	
to Fixed Asset Disposal Account	50 000
	<u>50 000</u>
to P&L 1	30 000
to P&L 2	20 000
	<u>50 000</u>
	<u>50 000</u>
Fixed Asset Disposal	
Fixed Asset Cost	130 000
	<u>130 000</u>
disposal value	70 000
Provision for Depreciation	50 000
to P&L 3 loss on disposal	10 000
	<u>130 000</u>
	<u>130 000</u>
Money and Promises	
original payment	130 000
	<u>130 000</u>
disposal proceeds	70 000
	<u>70 000</u>
P&L 1	
dep'n	30 000
	<u>30 000</u>
P&L 2	
dep'n	20 000
	<u>20 000</u>
P&L 3	
loss on disposal	10 000
	<u>10 000</u>



## Business 2

A fixed asset is purchased in YEAR 1 at a cost of £10 000. The business uses the fixed asset for two years, believing that it loses £2 000 of value in each year of use.

In Year 3 the fixed asset is sold for £7 000.

## Response

Fixed Asset Cost			
original purchase	10 000	to Fixed Asset Disposal Account	10 000
Provision for Depreciation			
to Fixed Asset Disposal Account	4 000	to P&L 1	2 000
		to P&L 2	2 000
	4 000		4 000
Fixed Asset Disposal			
Fixed Asset Cost	10 000	disposal value	7 000
		Provision for Depreciation	4 000
to P&L 3 profit on disposal	1 000		
	11 000		11 000
Money and Promises			
	original payment		10 000
disposal proceeds	7 000		
P&L 1			
	dep'n		2 000
P&L 2			
	dep'n		2 000
P&L 3			
	profit on disposal		1 000

### Business 3

A fixed asset is purchased in YEAR 1 at a cost of £20 000. The business believes that the fixed asset will lose 10% of its original value (cost) in each year of use.

In Year 3 the fixed asset is sold for £17 000.

### Response

Fixed Asset Cost			
original purchase	20 000	to Fixed Asset Disposal Account	20 000
Provision for Depreciation			
to Fixed Asset Disposal Account	4 000	to P&L 1	2 000
		to P&L 2	2 000
	4 000		4 000
Fixed Asset Disposal			
Fixed Asset Cost	20 000	disposal value	17 000
		Provision for Depreciation	4 000
to P&L 3 profit on disposal	1 000		
	21 000		21 000
Money and Promises			
	original payment		20 000
disposal proceeds	17 000		
P&L 1			
	dep'n		2 000
P&L 2			
	dep'n		2 000
P&L 3			
	profit on disposal		1 000

## Business 4

A fixed asset is purchased in YEAR 1 at a cost of £16 000. The business believes that in each year of use, the fixed asset will lose 25% of the value it had at the start of the year.

In Year 3 the fixed asset is sold for £8 500.

## Response

Fixed Asset Cost			
original purchase	16 000	to Fixed Asset Disposal Account	16 000
Provision for Depreciation			
to Fixed Asset Disposal Account	7 000	to P&L 1	4 000
		to P&L 2	3 000
	7 000		7 000
Fixed Asset Disposal			
Fixed Asset Cost	16 000	disposal value	8 500
		Provision for Depreciation	7 000
		to P&L 3 loss on disposal	500
	16 000		16 000
Money and Promises		P&L 1	
	original payment 16 000	dep'n	4 000
disposal proceeds	8 500		
		P&L 2	
		dep'n	3 000
		P&L 3	
		loss on disposal	500

## 29.4 A drill to show how the profit or loss on disposal works to correct previous errors in the estimation of value lost by a fixed asset

### Business 1

A fixed asset is acquired at cost £120 000 in YEAR 1. In YEAR 3 the fixed asset is disposed of for £57 500.

Treating each assumption separately, show how the actual loss in value of the fixed asset would have been accounted for in the P&L Accounts of YEAR 1, YEAR 2, and YEAR 3:

1. if the business believed that the fixed asset would lose 25% of its original value in each year of use
2. if the business believed that in each year of use, the fixed asset would lose 25% of the value it had at the start of the year.

### Response

The actual loss in value of the fixed asset is

$$£120\,000 - £57\,500 = £62\,500$$

This would have been accounted for as follows:

under assumption 1		under assumption 2	
<div>P&amp;L 1</div> <hr/> <div>depreciation 30 000</div>		<div>P&amp;L 1</div> <hr/> <div>depreciation 30 000</div>	
<div>P&amp;L 2</div> <hr/> <div>depreciation 30 000</div>		<div>P&amp;L 2</div> <hr/> <div>depreciation 22 500</div>	
<div>P&amp;L 3</div> <hr/> <div>loss on disposal 2 500</div>		<div>P&amp;L 3</div> <hr/> <div>loss on disposal 10 000</div>	

## Business 2

A fixed asset is acquired at a cost of £20 000 in YEAR 1. In YEAR 3 the fixed asset is disposed of for £16 500.

Treating each assumption separately, show how the actual loss in value of the fixed asset would have been accounted for in the P&L Accounts of YEAR 1, YEAR 2 and YEAR 3:

1. if the business believed that the fixed asset would lose 10% of its original value in each year of use
2. if the business believed that the fixed asset would lose £3 000 of value in YEAR 1, and £2 000 of value in YEAR 2.

## Response

The actual loss in value of the fixed asset is

$$£20\,000 - £16\,500 = £3\,500$$

This would have been accounted for as follows:

under assumption 1		under assumption 2	
<b>P&amp;L 1</b> <hr/> <div> <div>depreciation</div> <div>2 000</div> </div>		<b>P&amp;L 1</b> <hr/> <div> <div>depreciation</div> <div>3 000</div> </div>	
<b>P&amp;L 2</b> <hr/> <div> <div>depreciation</div> <div>2 000</div> </div>		<b>P&amp;L 2</b> <hr/> <div> <div>depreciation</div> <div>2 000</div> </div>	
<b>P&amp;L 3</b> <hr/> <div> <div></div> <div>profit on disposal</div> <div>500</div> </div>		<b>P&amp;L 3</b> <hr/> <div> <div></div> <div>profit on disposal</div> <div>1 500</div> </div>	

### 30.1 A drill to practise the quick method of accounting for the disposal of a fixed asset

For each example below, show the double entry for the quick method to account for the disposal of the fixed asset, or to complete the accounting for the disposal.

1. a fixed asset with original cost £10 000 and provision for depreciation £7 000 is sold with disposal proceeds £3 500

DR	money or promises	£3 500	
DR	Provision for Depreciation	£7 000	
CR	<i>P&amp;L Account – profit on disposal</i>		£500
CR	Fixed Asset Cost		£10 000

2. a fixed asset with original cost £4 500 and provision for depreciation £3 000 is sold with disposal proceeds £1 200

DR	money or promises	£1 200	
DR	Provision for Depreciation	£3 000	
DR	<i>P&amp;L Account – loss on disposal</i>	£300	
CR	Fixed Asset Cost		£4 500

3. a fixed asset with original cost £9 700 and provision for depreciation £4 200 is sold with disposal proceeds £5 500

DR	money or promises	£5 500	
DR	Provision for Depreciation	£4 200	
CR	Fixed Asset Cost		£9 700

4. a fixed asset with original cost £3 400 is sold for £1 000. Provision for depreciation on the fixed asset was £2 550

DR	money or promises	£1 000	
DR	Provision for Depreciation	£2 550	
CR	<i>P&amp;L Account – profit on disposal</i>		£150
CR	Fixed Asset Cost		£3 400

5. a fixed asset with original cost £81 900 is sold for £22 600. The loss on disposal is £1 700

DR	money or promises	£22 600	
DR	<i>Provision for Depreciation</i>	£57 600	
DR	P&L Account – loss on disposal	£1 700	
CR	Fixed Asset Cost		£81 900

6. a fixed asset is sold with £1 250 profit on disposal. Provision for depreciation on the fixed asset was £3 200, and disposal proceeds were £11 000

DR	money or promises	£11 000	
DR	Provision for Depreciation	£3 200	
CR	P&L Account – profit on disposal		£1 250
CR	<i>Fixed Asset Cost</i>		£12 950

7. a fixed asset is sold for £10 400, giving rise to a profit on disposal of £3 700. Total depreciation charged on the fixed asset during its life was £27 800

DR	money or promises	£10 400	
DR	Provision for Depreciation	£27 800	
CR	P&L Account – profit on disposal		£3 700
CR	<i>Fixed Asset Cost</i>		£34 500

8. a fixed asset is sold with profit on disposal £5 000. Original cost and cumulative depreciation were £89 000 and £43 000 respectively

DR	<i>money or promises</i>	£51 000	
DR	Provision for Depreciation	£43 000	
CR	P&L Account – profit on disposal		£5 000
CR	Fixed Asset Cost		£89 000

9. a fixed asset has been sold for £5 000. The firm has properly accounted for the disposal transaction but has not yet cancelled the fixed asset cost £40 000 and the provision for depreciation £36 000

DR	Fixed Asset Disposal	£5 000	
DR	Provision for Depreciation	£36 000	
CR	<i>P&amp;L Account – profit on disposal</i>		£1 000
CR	Fixed Asset Cost		£40 000

10. a fixed asset has been sold for £7 500. The firm has properly accounted for the disposal transaction but has not yet cancelled the fixed asset cost £30 000 and the provision for depreciation £20 000

DR	Fixed Asset Disposal	£7 500	
DR	Provision for Depreciation	£20 000	
DR	<i>P&amp;L Account – loss on disposal</i>	£2 500	
CR	Fixed Asset Cost		£30 000



### 31.1 A drill to practise the different methods of estimating annual depreciation

#### Business 1

At the beginning of a year, a fixed asset is in the balance sheet of a business at cost £12 000, less depreciation £3 000.

At the end of the year, the fixed asset remains in the business.

Show a P&L Account extract for the year, and an extract from the closing balance sheet, as they would be under each of the following assumptions:

1. depreciation is charged at 25% per year on cost

<i>P&amp;L</i>	
<i>depreciation</i>	3 000

#### BALANCE SHEET *extract*

fixed asset cost	12 000
provision for depreciation	(6 000)
Net Book Value	<u>£6 000</u>

2. depreciation is charged at 25% per year on the reducing balance

<i>P&amp;L</i>	
<i>depreciation</i>	2 250

#### BALANCE SHEET *extract*

fixed asset cost	12 000
provision for depreciation	(5 250)
Net Book Value	<u>£6 750</u>

3. the fixed asset is valued at £7 500 at the end of the year

<i>P&amp;L</i>	
<i>depreciation</i>	1 500

#### BALANCE SHEET *extract*

fixed asset cost	12 000
provision for depreciation	(4 500)
Net Book Value	<u>£7 500</u>

## Business 2

At the beginning of a year, a fixed asset is in the balance sheet of a business at cost £16 000, less depreciation £5 000.

At the end of the year, the fixed asset remains in the business.

Show a P&L Account extract for the year, and an extract from the closing balance sheet, as they would be under each of the following assumptions:

1. depreciation is charged at 10% per year on the straight line method

<i>P&amp;L</i>	
<i>depreciation</i>	1 600

### BALANCE SHEET *extract*

fixed asset cost	16 000
provision for depreciation	<u>(6 600)</u>
Net Book Value	<u><u>£9 400</u></u>

2. depreciation is charged at 10% per year on the reducing balance

<i>P&amp;L</i>	
<i>depreciation</i>	1 100

### BALANCE SHEET *extract*

fixed asset cost	16 000
provision for depreciation	<u>(6 100)</u>
Net Book Value	<u><u>£9 900</u></u>

### Business 3

A fixed asset with original cost £100 000 has been held by a business for three years.

Calculate the total depreciation charged to date (to the end of YEAR 3) and the net book value of the asset, under each of the following assumptions:

1. the policy of the firm has been to charge depreciation at 20% per year on the reducing balance
2. the policy of the firm has been to charge depreciation at 20% per year on cost

For each assumption, also calculate the profit or loss on disposal that would be reported if the fixed asset were sold for £45 000 at the start of YEAR 4.

1. if depreciation has been charged at 20% per year on the reducing balance

	£		
fixed asset cost	100 000	<b>Summary of Depreciation</b>	
less Year 1 depreciation 20%	(20 000)		£
remaining value	80 000	<b>YEAR 1</b>	20 000
less Year 2 depreciation 20%	(16 000)	<b>YEAR 2</b>	16 000
remaining value	64 000	<b>YEAR 3</b>	12 800
less Year 3 depreciation 20%	(12 800)	<b>TOTAL</b>	<u>£48 800</u>
remaining value	<u>£51 200</u>		

If sold for £45 000, loss on disposal would be £51 200 - £45 000 = £6 200

2. if depreciation has been charged at 20% per year on cost

	£		
fixed asset cost	100 000	<b>Summary of Depreciation</b>	
less Year 1 depreciation 20%	(20 000)		£
remaining value	80 000	<b>YEAR 1</b>	20 000
less Year 2 depreciation 20%	(20 000)	<b>YEAR 2</b>	20 000
remaining value	60 000	<b>YEAR 3</b>	20 000
less Year 3 depreciation 20%	(20 000)	<b>TOTAL</b>	<u>£60 000</u>
remaining value	<u>£40 000</u>		

If sold for £45 000, profit on disposal would be £45 000 - £40 000 = £5 000

NOTICE that in each case, the total of depreciation charged, plus loss on disposal/minus profit on disposal will be equal to the actual loss in value of £55 000

### **31.2 An exercise on the choice of different methods of estimating annual depreciation**

Identify the depreciation policy that might probably be applied to each of the following fixed assets:

**1. a 20-year lease on land and buildings**

This would most likely be depreciated on a straight line basis, although if the firm ever intended to sell the lease, it would probably find that the loss in value tended to accelerate with the passing of time

**2. antique fixtures and fittings in the boardroom of a large company**

It would seem unlikely that these particular fixed assets would suffer or be allowed to suffer much loss in value from the usual causes. The appropriate depreciation policy therefore would be a matter of debate. A prudent management might account for depreciation at say 20% per year on the reducing balance. A less prudent policy would be to avoid charging depreciation at all, or to rely on some informal annual valuation

**3. a freehold building kept in good repair**

Freehold buildings are often depreciated at 2% per year on cost. There may be an argument that a building kept in good repair does not in fact lose value, but in the context of technological change and the movement of economic activity from one region to another over time, it does seem prudent to account for some degree of depreciation

**4. a computerized accounting system**

At current rates of technological change in software development, and with no scrap value at the end of its life, it would be prudent to account for depreciation on this as rapidly as possible, say at 25% or more per year on cost

**5. freehold land**

Usually, there is no systematic accounting for depreciation on freehold land. However, depreciation may from time to time be charged if the land suffers a permanent fall in value (perhaps because of regional economic decline, or exposure to risks such as flooding)

**6. a passenger aircraft**

Since careful usage records must be kept for safety purposes, it would seem quite possible and desirable to account for depreciation on passenger aircraft on a usage basis, although for accounting convenience, it is quite likely that aircraft depreciation is accounted for on a straight line basis

**7. a motor vehicle**

The market value of a motor vehicle declines sharply at the beginning of its life. For this reason perhaps depreciation should be charged on the reducing balance, even though in practice it is most likely charged on a straight line basis

**8. a durable machine expected to have a long useful life**

Depreciation would probably be charged at a low annual rate on the straight line basis

**9. a new factory built by a military uniform manufacturer at the start of a war, to cater for increased demand (when such equipment would normally have a useful life of 10 years)**

If the factory is built solely to cater for the extra demand generated by the war, then depreciation should be charged over the expected life of the war – assuming that the war will be shorter than the expected life of the factory

### 31.3 An exercise on the effects of depreciation policy

1. You are the financial director of a company which has just started, with high investment in fixed assets. Investors in the firm are prepared to tolerate low profits in the early years, as the new firm establishes itself, but they do expect profits to rise steadily over time.

State the depreciation policy you would advise your fellow directors to adopt, and explain why.

**Response**

Depreciation on the reducing balance results in a depreciation charge which declines with the passage of time. Other things being equal, this will result in lower reported profits initially, and higher reported profits later. As this pattern of reported profits is what investors expect, this is probably what a financial director would choose to do in the circumstances.

2. State the effect on reported profits of the following changes in accounting assumptions:

a) longer asset lives

will in general lead to lower annual depreciation charges in the P&L Account, and therefore to higher reported profits

b) higher residual values (that is, higher expected disposal proceeds)

will in general lead to lower annual depreciation charges in the P&L Account, and therefore to higher reported profits

c) faster technological change in the industry

will in general lead to shorter asset lives and lower residual values and thus to higher annual depreciation charges in the P&L Account, and therefore to lower reported profits

d) shorter asset lives

will in general lead to higher annual depreciation charges in the P&L Account, and therefore to lower reported profits

### **32.1 A drill to practise the different year-end treatments of revenue expenditure and capital expenditure**

#### **REQUIRED**

- a) show how each of the following transactions would be initially recorded in the accounts of the business concerned
- b) show any necessary transfers (to the P&L Account or otherwise) at the year-end, and
- c) show how any remaining balances would be shown in the balance sheet at the year-end

**1.**

At the start of a year, a business purchases a machine for use in the business, paying a total price of £7 650 to the supplier. The price paid is made up as follows:

	£
machine	4 500
installation	1 000
one year's insurance	150
one year's servicing	200
delivery charge	300
training for machine operators	1 500
	<u>£7 650</u>

The business expects to use the machine for fifteen years before it is scrapped with no value.

**a) initial recording    b) transfers to P&L**

<i>Machine Cost</i>			
<i>machine</i>	4 500		
<i>installation</i>	1 000		
<i>delivery</i>	300		
	<u>5 800</u>	<i>c/f</i>	<u>5 800</u>
<i>b/f</i>	5 800		

<i>Provision for Depreciation</i>		
	<i>to P&amp;L</i>	387

<i>Insurance</i>		
150	<i>to P&amp;L</i>	150

<i>Training</i>		
1 500	<i>to P&amp;L</i>	1 500

<i>Servicing</i>		
200	<i>to P&amp;L</i>	200

<i>Money &amp; Promises</i>	
	7 650

<i>P&amp;L Account</i>	
<i>depreciation</i>	387
<i>insurance</i>	150
<i>servicing</i>	200
<i>training</i>	1 500

**c) treatment of remaining balances in balance sheet**

	£
Fixed Asset Cost	5 800
Provision for Depreciation	<u>( 387 )</u>
Net Book Value	<u>£5 413</u>



2.

The payments made by a building firm during a period include wages £540 000 and building materials £400 000.

Included in these amounts are wages of £20 000 in respect of work done on a new storage shed which the firm has built for itself, and materials costing £30 000 which were also used in the construction of the new shed.

**a) initial recording      b) transfers to other accounts**

Wages		Provision for Depreciation	
paid	540 000		to P&L 1 000
		to Shed Cost	20 000
		to P&L	520 000
Materials			
paid	400 000	to Shed Cost	30 000
		to P&L	370 000
Money & Promises		P&L Account	
		depreciation	1 000
		wages	520 000
		materials	370 000
Shed (fixed asset) Cost			
wages	20 000		
materials	30 000	c/f	50 000
	<u>50 000</u>		<u>50 000</u>
	<u><u>50 000</u></u>		
b/f	50 000		

### c) treatment of remaining balances in balance sheet

Fixed Asset – shed cost	50 000
Provision for Depreciation	(1 000)
Net Book Value	<u>£49 000</u>

Notice: we have arbitrarily assumed that the shed will be depreciated at 2% per year.

**3.**

A pharmaceutical business pays total salaries of £500 000 in a period.

Analysis at the end of the period shows that this includes salaries of production managers £300 000, and salaries of research scientists £200 000.

Of the salaries paid to research scientists, £120 000 relates to general research with no specific project yet envisaged, while £80 000 relates to final testing of a new drug to be marketed in the following year.

**a) initial recording      b) transfers to other accounts**

Salaries			
paid	500 000	to P&L	300 000
		to Research	200 000
Money & Promises			
			500 000
Research			
salaries	200 000	to P&L	120 000
		to new drug	80 000
	<u>200 000</u>		<u>200 000</u>
New Drug ( = Fixed Asset)			
testing cost	80 000		

Provision for Depreciation	
	to P&L      ?

P&L Account	
depreciation	?
salaries	
– management	300 000
– research	120 000

**c) treatment of remaining balances in balance sheet**

	<b>£</b>
<b>Fixed Asset – new drug cost</b>	<b>80 000</b>
<b>Provision for Depreciation</b>	<b>?</b>
<b>Net Book Value</b>	<b>?</b>

Notice: there may be other costs included as part of the capitalized or ‘fixed asset’ cost of the new drug, and without further information we do not know how the depreciation of this fixed asset should be accounted for.

### 32.2 An exercise on the distinction between capital expenditure and revenue expenditure

#### REQUIRED

State whether the following should be treated as capital expenditure or revenue expenditure. Give reasons for your decision and/or state any further information you may need in order to make a decision.

In the case of capital expenditure, also outline the depreciation policy you would propose for the relevant fixed asset.

1. legal fees in connection with the purchase of land for construction of a new factory

This should be treated as capital expenditure – part of the cost of building the new factory. It should be depreciated on the same basis as the factory itself.

2. major repairs to the roof of a building

If this involves mere repairs, it should be treated as revenue expenditure – an expense in the current P&L Account. If it involves any element of improvement to the roof (for example improved insulation, better lighting, etc.), then the proportion of the cost that relates to improvements may be treated as capital expenditure, with depreciation accounted for on the same basis as the building itself.

3. purchase of a pencil sharpener and stapler for use in an office

Technically these are fixed assets – acquired for long-term use in the business. However, in view of the very small value involved, the expenditure would in most firms be treated as revenue expenditure and shown as an expense in the current P&L Account.

(Notice that most firms have a financial limit below which expenditure on a single item will not be treated as capital expenditure. Can you think of any possible perverse consequences of such a policy?)

**4. purchase of hand-tools by a self-employed craftsman**

In a large firm the purchase of hand tools may well be regarded as revenue expenditure, because the value involved is small relative to the investment in the business as a whole. A self-employed craftsman however (operating on a much smaller financial scale) might decide to capitalize the expenditure on certain hand tools, depending on their cost, and on their expected useful life.

**5. purchase of hand-tools by an engineering factory**

This would probably be treated as revenue expenditure. Alternatively, the tools held in the business at each year-end could be treated as a form of stock.

**6. purchase of overalls for factory workers**

This would probably be treated as revenue expenditure.

**7. purchase of costumes by a nightclub artiste**

Depending on the cost involved (which may be very high) and the expected useful life of the costumes, this may well be treated as capital expenditure, with the costumes shown as fixed assets in the artiste's balance sheet.

**8. staff training costs**

Although staff training may provide future benefits for the firm, prudence dictates that the expenditure should be treated as an expense (revenue expenditure) because the benefit is hard to estimate, and the trained staff may leave the firm before the benefit is realized.

**9. patent registration fees**

If the patent is granted, and likely to prove profitable, the registration fees may be treated as capital expenditure, and included in the cost of the invention as a fixed asset in the balance sheet. If/when the patent is not likely to prove profitable, the costs associated with it should be treated as expenses (revenue expenditure).

**10. advertising to promote a special offer**

This should be treated as revenue expenditure – an expense in the current P&L Account.

**11. advertising to promote ‘name awareness’**

‘Name awareness’ is in practice a valuable asset, and can boost sales for many years to come. On these grounds, expenditure to create name awareness could arguably be treated as capital expenditure, with depreciation accounted for in future P&L Accounts as an expense against the sales to which it may give rise. However, on grounds of prudence (because the extent of the future benefit cannot be reasonably known in advance), most accountants would argue that like any other advertising it should be treated as revenue expenditure.

**12. legal fees in connection with defence of patent rights**

If the court action is to defend against minor infringements, the expenditure should be treated as revenue expenditure. However, if the action successfully establishes a point of law that was previously in doubt, and therefore increases the value of the patent, then the expenditure could be treated as capital expenditure, and depreciated over the remaining useful life of the patent.

**13. costs of setting up a new accounting system**

Although a successful new accounting system should bring future benefits to the firm, on the grounds of prudence, this expenditure would in most circumstances be treated as revenue expenditure – an expense in the current P&L Account.

**14. costs of recruiting skilled staff**

Despite their probable future value to the firm, to the extent that skilled staff are not tied to the firm and may leave at any moment, the expenditure involved in their recruitment should be treated as revenue expenditure.

**15. major costs associated with arranging a very large long-term loan**

The costs of arranging a large loan in connection with the purchase or construction of a fixed asset may be treated as capital expenditure and included in the cost of the fixed asset.

**16. cost of farm-workers' labour in digging drainage ditches**

Ditches are fixed assets which provide future economic benefits, and therefore the costs of digging new ditches could be treated as capital expenditure. (The cost of merely digging out old ditches would be revenue expenditure.)

**17. a football transfer fee of £8 million**

Transfer fees are usually treated as capital expenditure, and depreciation is charged over the life of the contract. (Compare the answer to Q14 – why are these treated differently?)

**18. market research prior to the launch of a new product**

Effective market research may make for more profitable sales in the future, and to that extent, in theory, its cost may be capitalized or treated as a fixed asset. However, prudence is again invoked to require that most such costs are treated as revenue expenditure and expensed in the P&L Account.

### 32.3 An exercise on the potential significance of the capital/revenue decision

The government of an oil-producing country has plans for a tax on the profits of the foreign oil company that is licensed to drill and operate in the country.

The company argues that it should be able to deduct all exploration costs as an expense in the year of expenditure. The government argues that exploration costs should be treated as capital expenditure and amortized at 8% per year.

Comment, and explain some of the consequences of the point at issue.

#### Response

Some points to raise:

1. The company's preference for allowing all exploration costs as an expense in the year of expenditure would lower the company's taxable profits by a substantial amount immediately.
2. The company might argue that without such tax incentives, it might not be able to afford an adequate exploration programme (especially since exploration may not be successful, and even if successful, it would take time to develop and exploit any discovery to the point where it would generate any revenue for the company).
3. The government's preference for amortization at 8% per year would lower the company's allowable expenses for tax in the immediate future, and therefore increase the government's tax revenue.
4. If the company's preference were adopted, it could lead to unnecessary and/or sporadic exploration, merely to reduce the company's current tax liability.

**32.4 An exercise on the potential for fraudulent abuse of the capital/revenue distinction**

Research a company called WorldCom, and write a brief account of the fraud that led to its collapse in 2002.

*Various students' answers*



**33.0 There are no drills or exercises on this chapter.**

### 34.1 A drill to practise the relation between operating profit and cashflow (not including fixed asset acquisitions and disposals)

For each separate business below, produce a reconciliation between operating profit and the increase or decrease in cash held by the business during the period.

You may assume that there have been no transactions with the owner, and that the business has made no fixed asset purchases or disposal (any change in fixed asset value will be solely attributable to the depreciation charge for the year).

*Remember that profit is reflected in an increase in net assets.*

#### Business 1

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	400	Fixed Assets	375
Stock	250	Stock	200
Trade debtors	125	Trade debtors	100
Bank	100	Bank	90
	<u>875</u>		<u>765</u>
LIABILITIES		LIABILITIES	
Trade Creditors	(160)	Trade Creditors	(20)
NET ASSETS	<u>£715</u>	NET ASSETS	<u>£745</u>
CAPITAL	<u>£715</u>	CAPITAL	<u>£745</u>

#### Reconciliation of Operating Profit to Cash from Operations

	£
operating profit	30
decrease in debtors	25
decrease in creditors	(140)
decrease in stock	50
depreciation	25
cash from operations	<u>£(10)</u>

#### Proof:

closing bank	90
opening bank	(100)
decrease in cash	<u>£(10)</u>

## Business 2

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	350	Fixed Assets	325
Stock	220	Stock	200
Trade debtors	140	Trade debtors	210
Bank	130	Bank	120
	<u>840</u>		<u>855</u>
LIABILITIES		LIABILITIES	
Trade Creditors	(45)	Trade Creditors	(55)
NET ASSETS	<u>£795</u>	NET ASSETS	<u>£800</u>
CAPITAL	<u>£795</u>	CAPITAL	<u>£800</u>

### Reconciliation of Operating Profit to Cash from Operations

	£
operating profit	5
increase in debtors	(70)
increase in creditors	10
decrease in stock	20
depreciation	25
cash from operations	<u>£(10)</u>

### Proof:

closing bank	120
opening bank	(130)
decrease in cash	<u>£(10)</u>

**Business 3**

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	325	Fixed Assets	300
Stock	200	Stock	280
Trade debtors	210	Trade debtors	190
Bank	120	Bank	150
	<u>855</u>		<u>920</u>
LIABILITIES		LIABILITIES	
Trade Creditors	(55)	Trade Creditors	(105)
NET ASSETS	<u>£800</u>	NET ASSETS	<u>£815</u>
CAPITAL	<u>£800</u>	CAPITAL	<u>£815</u>

**Reconciliation of Operating Profit  
to Cash from Operations**

	£
<b>operating profit</b>	15
decrease in debtors	20
increase in creditors	50
increase in stock	(80)
depreciation	25
<b>cash from operations</b>	<u>£30</u>

**Proof:**

closing bank	150
opening bank	(120)
increase in cash	<u>£30</u>

**Business 4**

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	300	Fixed Assets	275
Stock	280	Stock	100
Trade debtors	190	Trade debtors	50
Bank	150	Bank	450
	<u>920</u>		<u>875</u>
LIABILITIES		LIABILITIES	
Trade Creditors	(105)	Trade Creditors	(155)
NET ASSETS	<u>£815</u>	NET ASSETS	<u>£720</u>
CAPITAL	<u>£815</u>	CAPITAL	<u>£720</u>

**Reconciliation of Operating Loss  
to Cash from Operations**

	£
<b>operating loss</b>	(95)
decrease in debtors	140
increase in creditors	50
decrease in stock	180
depreciation	25
<b>cash from operations</b>	<u>£300</u>

**Proof:**

closing bank	450
opening bank	(150)
increase in cash	<u>£300</u>

**Business 5**

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	275	Fixed Assets	250
Stock	100	Stock	300
Trade debtors	50	Trade debtors	240
Bank	450	Bank	50
	<u>875</u>		<u>840</u>
LIABILITIES		LIABILITIES	
Trade Creditors	(155)	Trade Creditors	(100)
NET ASSETS	<u>£720</u>	NET ASSETS	<u>£740</u>
CAPITAL	<u>£720</u>	CAPITAL	<u>£740</u>

**Reconciliation of Operating Profit  
to Cash from Operations**

	£
<b>operating profit</b>	20
increase in debtors	(190)
decrease in creditors	(55)
increase in stock	(200)
depreciation	25
<b>cash from operations</b>	<u>£(400)</u>
<b>Proof:</b>	
closing bank	50
opening bank	(450)
decrease in cash	<u>£(400)</u>

*N.B. The Trade debtors line in the textbook is incorrect.*

**Business 6**

opening balance sheet		closing balance sheet	
	£		£
ASSETS		ASSETS	
Fixed Assets	250	Fixed Assets	225
Stock	300	Stock	350
Trade debtors	240	Trade debtors	<u>300</u>
Bank	<u>50</u>		875
	840	LIABILITIES	
LIABILITIES		Trade Creditors	100
Trade Creditors	<u>(100)</u>	Bank overdraft	<u>25</u>
NET ASSETS	<u>£740</u>		(125)
		NET ASSETS	<u>£750</u>
CAPITAL	<u>£740</u>	CAPITAL	<u>£750</u>

**Reconciliation of Operating Profit  
to Cash from Operations**

	£
<b>operating profit</b>	10
increase in debtors	(60)
(no change in creditors)	—
increase in stock	(50)
depreciation	<u>25</u>
<b>cash from operations</b>	<u>£(75)</u>

**Proof:**

closing overdraft	(25)
opening bank	<u>50</u>
decrease in cash	<u>£(75)</u>

### 34.2 A drill to practise the relation between operating profit and cashflow (with fixed asset purchases and disposals)

For each separate business below, produce a reconciliation between operating profit and the increase or decrease in cash held by the business during the period. You may assume there have been no transactions with the owner.

#### Business 7

opening balance sheet			closing balance sheet		
	£	£		£	£
ASSETS			ASSETS		
Fixed Assets		225	Fixed Assets		360
Stock		350	Stock		300
Trade debtors		<u>300</u>	Trade debtors		<u>260</u>
		875			920
LIABILITIES			LIABILITIES		
Trade Creditors	100		Trade Creditors	110	
Bank overdraft	<u>25</u>		Bank overdraft	<u>45</u>	
		(125)			(155)
NET ASSETS		<u>£750</u>	NET ASSETS		<u>£765</u>
CAPITAL		<u>£750</u>	CAPITAL		<u>£765</u>

#### Relevant changes in fixed assets:

During the period, the business	
acquired a new fixed asset for	£300
and disposed of a fixed asset for	£150
Net book value of the disposal was	£125
Depreciation charged in the year was	£40

#### Reconciliation of Operating Profit to Total Cash Flow

	£
operating profit	15
decrease in debtors	40
increase in creditors	10
decrease in stock	50
depreciation	40
less profit on disposal	<u>(25)</u>
<b>cash from operations</b>	<b>130</b>
cash from disposal of fixed asset	150
cash paid for new fixed asset	<u>(300)</u>
<b>Total decrease in cash</b>	<b><u>£(20)</u></b>

#### Proof:

closing overdraft	(45)
opening overdraft	<u>(25)</u>
decrease in cash	<u>£(20)</u>



**Business 8**

opening balance sheet			closing balance sheet	
	£	£		£
ASSETS			ASSETS	
Fixed Assets		360	Fixed Assets	270
Stock		300	Stock	300
Trade debtors		<u>260</u>	Trade debtors	260
		920	Bank	<u>130</u>
LIABILITIES				960
Trade Creditors	110		LIABILITIES	
Bank overdraft	<u>45</u>		Trade Creditors	<u>(145)</u>
		(155)	NET ASSETS	<u>£815</u>
NET ASSETS		<u>£765</u>		
CAPITAL		<u>£765</u>	CAPITAL	<u>£815</u>

**Relevant changes in fixed assets:**

During the period, the business	
acquired a new fixed asset for	£100
and disposed of a fixed asset for	£140
Net book value of the disposal was	£160
Depreciation charged in the year was	£30

**Reconciliation of Operating Profit  
to Total Cash Flow**

	£
operating profit	50
change in debtors	nil
increase in creditors	35
change in stock	nil
depreciation	30
add loss on disposal	<u>20</u>
<b>cash from operations</b>	<b>135</b>
cash from disposal of fixed asset	140
cash paid for new fixed asset	<u>(100)</u>
<b>Total decrease in cash</b>	<b><u>£175</u></b>
<b>Proof:</b>	
closing bank	130
opening overdraft	<u>(45)</u>
decrease in cash	<u>£175</u>

### 35.1 A drill to practise the idea of accruals and prepayments

REQUIRED: for each set of data below, show:

- relevant extracts from an account for money and/or promise
- the relevant expense account, and
- relevant extracts from the P&L Account for the period, and from the balance sheet at the end of the period

#### 1.

During a period, a firm records £2 400 as payment, in money or promises, for labour.

Labour actually used during the period was valued at £2 450

Labour	
<i>paid for</i>	2 400
<i>c/f</i>	50
	<u>2 450</u>
<i>to P&amp;L</i>	2 450
	<u>2 450</u>
<i>bal b/f</i>	50
<i>= accrual</i>	

Money & Promises	
	<i>payment</i> 2 400

P&L Account	
<i>labour consumed</i>	2 450

**BALANCE SHEET extract**      **£**  
**accrual (current liability)**      **50**

#### 2.

During a period, a business receives and records invoices for legal services to the value of £1 500.

Legal services actually used during the period were valued at £1 700

Legal services	
<i>paid for</i>	1 500
<i>c/f</i>	200
	<u>1 700</u>
<i>to P&amp;L</i>	1 700
	<u>1 700</u>
<i>bal b/f</i>	200
<i>= accrual</i>	

Money & Promises	
	<i>payment</i> 1 500

P&L Account	
<i>legal services used</i>	1 700

**BALANCE SHEET extract**      **£**  
**accrual (current liability)**      **200**

**3.**

A firm uses a credit control agency to check the records of customers who ask to be supplied on credit, and has paid £400 for the right to make 40 searches in the agency's database at £10 per search.

At the end of the period, the firm has made only 30 searches.

Credit Control			
<i>paid for</i>	400	<i>to P&amp;L</i>	300
		<i>c/f</i>	100
	<u>400</u>		<u>400</u>
<i>bal b/f</i> <i>= prepayment</i>	100		

  

Money & Promises	
	<i>payment</i> 400

  

P&L Account	
<i>credit control used</i>	300

  

<b>BALANCE SHEET extract</b>	<b>£</b>
prepayment (current asset)	100

**4.**

During a period, a firm receives and records invoices from its accountants, to the value of £3 450.

Accounting services actually used during the period were valued £3 200.

Accounting Services			
<i>paid for</i>	3 450	<i>to P&amp;L</i>	3 200
		<i>c/f</i>	250
	<u>3 450</u>		<u>3 450</u>
<i>bal b/f</i> <i>= prepayment</i>	250		

  

Money & Promises	
	<i>payment</i> 3 450

  

P&L Account	
<i>accounting service used</i>	3 200

  

<b>BALANCE SHEET extract</b>	<b>£</b>
prepayment (current asset)	250

**5.**

The Electricity Account of a business at the end of a period (before transfers to the P&L Account) shows a balance of £500 DR.

During the period, the business actually used electricity to the value of £520.

Electricity			
<i>balance paid for</i>	500	<i>to P&amp;L</i>	520
<i>c/f</i>	20		
	<u>520</u>		<u>520</u>
		<i>bal b/f</i>	20
		<i>= accrual</i>	

  

Money & Promises	
	<i>payment</i> 500

  

P&L Account	
<i>electricity consumed</i>	520

  

<b>BALANCE SHEET extract</b>	<b>£</b>
<b>accrual (current liability)</b>	<b>20</b>

**6.**

The Waste Disposal Account of a business at the end of a period (before transfers to the P&L Account) shows a balance of £230.

During the period, the firm actually used waste disposal services to the value of £200.

Waste Disposal			
<i>balance paid for</i>	230	<i>to P&amp;L</i>	200
	<u>230</u>	<i>c/f</i>	30
			<u>230</u>
<i>bal b/f</i>	30		
<i>= prepayment</i>			

  

Money & Promises	
	<i>payment</i> 230

  

P&L Account	
<i>waste disposal used</i>	200

  

<b>BALANCE SHEET extract</b>	<b>£</b>
<b>prepayment (current asset)</b>	<b>30</b>

**7.**

During a period in which it recorded no transactions and made no payments in money or promises in respect of advertising, a firm actually used its advertising agency to do work to the value of £4 000.

Advertising			
		to P&L	4 000
c/f	<u>4 000</u>		<u>4 000</u>
	<u>4 000</u>		<u>4 000</u>
		bal b/f	4 000
		= accrual	

  

P&L Account	
advertising used	4 000

  

Money & Promises	

  

<b>BALANCE SHEET extract</b>	<b>£</b>
accrual (current liability)	4 000

**8.**

In the final month of its accounting period, a firm pays £300 for a year's subscription to a trade magazine, their first copy of the magazine to be received in the following month (that is, in the following accounting period).

Magazine Subscription			
balance paid for	300	to P&L	0
	<u>300</u>	c/f	<u>300</u>
	<u>300</u>		<u>300</u>
bal b/f	300		
= prepayment			

  

P&L Account	
magazines received	0

  

Money & Promises	
	payment 300

  

<b>BALANCE SHEET extract</b>	<b>£</b>
prepayment (current asset)	300

### 35.2 An exercise on the nature of some accounting adjustments

Describe and explain the different accounting treatments of:

- closing stock
- fixed assets
- prepayments

In what way are these items similar? Why is the accounting procedure for each of them different, at the end of a period?

#### Response

Closing stock, fixed assets and prepayments are all unconsumed inputs, which should be excluded from the P&L Account.

Closing stock consists of inputs like purchases, acquired for use in the short term, but not yet consumed at the end of the current period. The usual accounting practice is to put the value of all such inputs into the P&L Account, and then take the unconsumed portion out again. This roundabout treatment is probably adopted because it reflects the only practical method of determining the value of such inputs consumed in a period – by taking stock at the end of a period, and deducting the value of unconsumed inputs from the value of inputs available for consumption.

Fixed assets are inputs acquired for use in the longer term. With these, the usual accounting treatment is to transfer to the P&L only that part of their value that has been consumed in the current period. This treatment is the most logical and direct, even though the value consumed must in any case be estimated.

Prepayments reflect inputs recorded in the accounts because they have been paid for, even though the firm has not yet received the input. Here the usual treatment is in effect to take the value of input not yet received out of the input account before transferring the remaining value to the P&L Account.

### 36.1 A drill to practise the idea of accrued income and deferred income

REQUIRED: for each set of data below, show:

- relevant extracts from an account for money and/or promise
- the Sales Account, and
- relevant extracts from the P&L Account for the period, and from the balance sheet at the end of the period

#### 1.

During a period, a firm receives payment, in money or promises, for sales to the value of £5 000.

Sales actually delivered during the period are valued at £5 200

Sales	
to P&L (sales delivered) 5 200	balance (sales paid for) 5 000
	c/f 200
<u>5 200</u>	<u>5 200</u>
bal b/f = accrued income 200	

  

P&L Account
sales delivered 5 200

Money & Promises	
payment received 5 000	

BALANCE SHEET extract	£
accrued income (current asset)	200

**2.**

During a period, a firm receives payment, in money or promises, for sales to the value of £9 250.

Sales actually delivered during the period are valued at £9 000

Sales			
to P&L (sales delivered)	9 000	balance (sales paid for)	9 250
c/f	250		
	<u>9 250</u>		<u>9 250</u>
		bal b/f = deferred income	250

  

P&L Account	
	sales delivered 9 000

  

Money & Promises	
payment received	9 250

  

<b>BALANCE SHEET extract</b>	<b>£</b>
deferred income (current liability)	250

**3.**

During a period, a firm issues sales invoices to the value of £8 360.

Sales actually delivered during the period are valued at £8 200.

Sales			
to P&L (sales delivered)	8 200	balance (sales paid for)	8 360
c/f	160		
	<u>8 360</u>		<u>8 360</u>
		bal b/f = deferred income	160

  

P&L Account	
	sales delivered 8 200

  

Money & Promises	
payment received	8 360

  

<b>BALANCE SHEET extract</b>	<b>£</b>
deferred income (current liability)	160



**4.**

During a period, a firm issues sales invoices to the value of £100 000.

Sales actually delivered during the period are valued at £103 000.

Sales			
to P&L (sales delivered)	103 000	balance (sales paid for)	100 000
		c/f	3 000
	<u>103 000</u>		<u>103 000</u>
bal b/f = accrued income	3 000		

  

P&L Account	
	sales delivered 103 000

  

Money & Promises	
payment received	100 000

  

<b>BALANCE SHEET extract</b>	<b>£</b>
accrued income (current asset)	3 000

**5.**

The Sales Account at the end of a period (before transfers to the P&L Account) shows a balance of £15 400 CR. During the period, the business actually delivered goods and services to the value of £15 000.

Sales			
to P&L (sales delivered)	15 000	balance (sales paid for)	15 400
c/f	400		
	<u>15 400</u>		<u>15 400</u>
		bal b/f = deferred income	400

  

P&L Account	
	sales delivered 15 000

  

Money & Promises	
payment received	15 400

  

<b>BALANCE SHEET extract</b>	<b>£</b>
deferred income (current liability)	400

**6.**

At the end of a period (before transfers to the P&L Account) the Sales Account of a business shows a balance of £24 700. During the period, the business actually delivered goods and services to the value of £25 000.

Sales			
to P&L (sales delivered)	25 000	balance (sales paid for)	24 700
		c/f	300
	<u>25 000</u>		<u>25 000</u>
bal b/f = accrued income	300		

  

P&L Account	
	sales delivered 25 000

  

Money & Promises	
payment received	24 700

  

<b>BALANCE SHEET extract</b>	<b>£</b>
accrued income (current asset)	300

**7.**

A firm of engineers in Xanadu has a single client from whom it has received a payment of £30 000 under a contract to advise on the construction of a pleasure dome. By the end of the firm's accounting period, construction work had not yet commenced, and the firm had given no advice to the client.

Sales			
<i>to P&amp;L</i> <i>(sales delivered)</i>	nil	<i>balance</i> <i>(sales paid for)</i>	30 000
<i>c/f</i>	<u>30 000</u>	<i>c/f</i>	<u>30 000</u>
	<u>30 000</u>		<u>30 000</u>
		<i>bal b/f</i> <i>= deferred income</i>	30 000

  

P&L Account	
	<i>sales delivered</i> nil

  

Money & Promises	
<i>payment received</i>	30 000

  

<b>BALANCE SHEET extract</b>	<b>£</b>
deferred income (current liability)	30 000

NOTE:

In this example we have made a nil transfer to the P&L Account, to show how the logic of the system works. In normal circumstances, with no sales delivered, there would be no sales to transfer to the P&L, and the balance recorded there would simply be left to appear in the balance sheet as deferred income.

**8.**

A firm of accountants has a single client for whom it has completed work during a period with a sales value of £4 500. By the end of the period, the firm has issued no sales invoice in connection with this work.

Sales			
to P&L (sales delivered)	4 500	balance (sales paid for)	nil
		c/f	4 500
	<u>4 500</u>		<u>4 500</u>
bal b/f = accrued income	4 500		

  

P&L Account		Money & Promises	
	sales delivered	4 500	
		payment received	nil

  

<b>BALANCE SHEET extract</b>	<b>£</b>
accrued income (current asset)	4 500

## NOTE:

In this example we have shown a nil entry in the Sales Account and the account for money and promises, to show how the logic of the system works. In normal circumstances, with no invoice issued, and therefore no recorded transaction, there would be no existing balance on the Sales Account, and the value transferred to the P&L Account would become the final balance on the account, being shown in the balance sheet as accrued income.

### 36.2 Some practical considerations concerning accruals, etc.

You are the financial director of a major travel and holiday firm in the northern hemisphere. In what month would you choose to have the end of your accounting year? (Give reasons for your answer.)

#### Response

Accounting year end procedures are arduous and time-consuming. It is important therefore to choose a date for the end of the accounting year that will (as far as possible) coincide with a quiet period for the business, so that accounting and running the business do not conflict with each other. Thus in England for example, the government's financial year and the tax year both end on 5 April, coinciding with a quiet time in agriculture, which at the time these dates were fixed, was the predominant industry in the country.

In the northern hemisphere, most people take their holidays in the summer months (June, July and August), and at Christmas (late December), and the two or three months that follow. A travel firm would therefore probably avoid having its financial year end in any one of those months. Furthermore, since people generally pay in advance for their holidays, any year-end cut-off date in the months leading up to these peak periods would entail much adjustment of the accounts in respect of deferred income.

On the basis of these facts, the financial director would probably advise a travel firm to fix its financial year end somewhere in October or November.

### 37.1 A drill on the presentation of accruals, etc. in the extended trial balance

REQUIRED: for each separate extract from an extended trial balance below, with notes, show the values that should be included in the P&L Account, and the values that should be included in the balance sheet. Where values are to be included in the balance sheet, state what they should be called.

#### FIRM A

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		4 000				
expense	1 500					

#### Option 1

Note: the value of sales actually delivered in the period was £4 500, and it is estimated that only £1 300 of the expense paid for has actually been consumed.

#### Response

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		4 000		4 500	500	
expense	1 500		1 300		200	

The £500 DR in the balance sheet from the Sales Account represents accrued income (the right to collect payment for goods delivered but not yet paid for in money or recorded promises).

The £200 DR in the balance sheet from the Expense Account represents a prepayment (the right to receive goods or services paid for in money or recorded promises, but not yet received).

**FIRM A continued**

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		4 000				
expense	1 500					

**Option 2**

Note: the value of sales actually delivered in the period was £3 700, and it is estimated that £2 200 of the expense paid for has actually been consumed.

**Response**

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		4 000		3 700		300
expense	1 500		2 200			700

The £300 CR in the balance sheet from the Sales Account represents deferred income (the liability to deliver goods already paid for in money or promises).

The £200 CR in the balance sheet from the Expense Account represents an accrual (the liability to pay for goods or services received but not yet paid for in money or recorded promises).

**FIRM B**

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		6 000				
expense	2 000					

**Option 1**

Note: the value of sales actually delivered in the period was only £6 000, while in fact a total of £2 300 of the expense has actually been consumed.

**Response**

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		6 000		6 000		
expense	2 000		2 300			300

The £300 CR in the balance sheet from the Expense Account represents an accrual (the liability to pay for goods or services received but not yet paid for in money or recorded promises).

**FIRM B continued**



	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		6 000				
expense	2 000					

### Option 2

Note: the value of sales actually delivered in the period was £6 750, while only £1 800 of the expense has actually been consumed.

### Response

	Trial Balance		P&L Account		Balance Sheet	
	DR	CR	DR	CR	DR	CR
sales		6 000		6 750	750	
expense	2 000		1 800		200	

The £750 DR in the balance sheet from the Sales Account represents accrued income (the right to collect payment for goods delivered but not yet paid for in money or recorded promises).

The £200 DR in the balance sheet from the Expense Account represents a prepayment (the right to receive goods or services paid for in money or recorded promises, but not yet received).

### 37.2 A drill to practise understanding the terms accrual, prepayment, deferred income and accrued income

#### 1.

A firm's P&L Account shows an expense of £650 in respect of electricity. The balance sheet shows an accrual of £50.

State what this means, and say what was the original balance on the Electricity Account after all transactions had been recorded, and before transfers to the P&L Account.

#### Response

This means that the firm has used £650 of electricity in the period, but has not yet recorded transactions (payment in money or promises) in respect of £50 of the electricity used.

The original balance on the Electricity Account, before transfers to the P&L Account, would have been £600 DR.

#### 2.

A firm's P&L Account shows an expense of £500 in respect of rent. The balance sheet shows a prepayment of £70.

State what this means, and say what was the original balance on the Rent Account after all transactions had been recorded, and before transfers to the P&L Account.

#### Response

This means that the firm has occupied premises at a rental cost of £500 for the period covered by the P&L Account, but has actually recorded transactions (payments of rent, in money or promises) for another £70 of rent.

The original balance on the Rent Account, before transfers to the P&L Account, would have been £570 DR.

**3.**

A firm's P&L Account shows sales value £650 for the year. The balance sheet shows deferred income of £50.

State what this means, and say what was the original balance on the Sales Account after all transactions had been recorded, and before transfers to the P&L Account.

**Response**

This means that the firm has delivered sales the value of £650 during the period. However, it has recorded sales transactions (payments received in money or promises) for another £50 of sales which have not yet been delivered.

The original balance on the Sales Account, before transfers to the P&L Account, would have been £700 CR.

**4.**

A firm's P&L Account shows sales value £1 000 for the year. The balance sheet shows accrued income of £200.

State what this means, and say what was the original balance on the Sales Account after all transactions had been recorded, and before transfers to the P&L Account.

**Response**

This means that the firm has delivered sales the value of £1 000 during the period. However, included in that £1 000 is £200 of sales in respect of which the firm has not yet properly recorded any transaction.

The original balance on the Sales Account, before transfers to the P&L Account, would have been £800 CR.

### 38.1 A drill on the idea of accruals, etc. as a mechanism for shifting sales and expenses recorded in one period into the P&L Account of another period

REQUIRED: for each set of data below, show:

- a relevant extract from an account for money or promises
- the relevant expense or sales account with transactions recorded in the current year
- any adjustments necessary to ensure that the P&L Accounts of the current year and the next year will reflect the actual value of inputs consumed or outputs created in the period (rather than the values paid for in the period)
- the necessary transfer to the P&L Account for the current year, with extracts from the P&L Account for the year and the balance sheet at the end of the year.

#### 1.

Before transfers to the P&L Account, the balance on a firm's account for repair work, an expense, is £10 500 DR.

Of this value recorded in the current year, £1 500 relates to work not yet done, which will be done in the following year.

<i>Repair work</i>			
value paid for	10 500	to P&L	9 000
		c/f	1 500
	<u>10 500</u>		<u>10 500</u>
bal b/f – prepayment	1 500		

  

<i>Money &amp; Promises</i>	
payment	10 500

  

<i>P&amp;L Account</i>	
Repair work done	9 000

  

<b>BALANCE SHEET extract</b>	<b>£</b>
prepayment (current asset)	1 500

## 2.

Before transfers to the P&L Account, the balance on a firm's account for building maintenance, an expense, is £1 600 DR.

Further maintenance work to the value of £400 has been done in the period, but no invoice for this work has been received, and the work will have to be recorded in the ledger account next year.

Building Maintenance			
value	1 600	to P&L	2 000
paid for			
c/f	400		
	<u>2 000</u>		<u>2 000</u>
		bal b/f	400
		– accrual	

  

Money & Promises	
payment	1 600

  

P&L Account	
maintenance work done	2 000

  

BALANCE SHEET extract	£
accrual (current liability)	400

**3.**

During a period, a firm has issued invoices, and therefore recorded sales, to the value of £33 000.

This includes certain sales, value £3 000, which the business has not yet been able to deliver, and which will be delivered in the next period.

Sales			
<i>to P&amp;L</i>	30 000	<i>sales value recorded</i>	33 000
<i>c/f</i>	3 000		
	<u>33 000</u>		<u>33 000</u>
		<i>bal b/f</i>	
		<i>– deferred income</i>	3 000

  

P&L Account	
	<i>sales value delivered</i> 30 000

  

Money & Promises	
<i>payment received</i>	33 000

  

<b>BALANCE SHEET extract</b>	<b>£</b>
<i>deferred income (current liability)</i>	3 000

**4.**

In its accounts for a period, a business has recorded transactions in respect of sales to the value of £37 000.

In addition to these recorded sales, the firm has also delivered sales to the value of £2 000, which will be recorded in the accounts of the following period, when the relevant invoices are issued to customers.

Sales			
to P&L	39 000	sales value recorded	37 000
		c/f	2 000
	<u>39 000</u>		<u>39 000</u>
bal b/f – accrued income	2 000		

  

P&L Account	
	sales value delivered 39 000

  

Money & Promises	
payment received	37 000

  

<b>BALANCE SHEET extract</b>	<b>£</b>
accrued income (current asset)	2 000

## 5.

For many firms in the Democratic Republic of Accrulia, a recent postal strike has delayed the receipt of invoices from the suppliers of goods and services.

A business in Accrulia has received invoices from suppliers in respect of expenses totalling £45 000, but the business suspects that further invoices for work done in the period, totalling £5 000, have been delayed in the post, and will have to be recorded in the ledger accounts of the following period.

Expenses			
value	45 000	to P&L	50 000
paid for			
c/f	5 000		
	<u>50 000</u>		<u>50 000</u>
		bal b/f	5 000
		– accrual	

  

P&L Account	
expenses consumed	50 000

  

Money & Promises	
payment	45 000

  

BALANCE SHEET extract	£
accrual (current liability)	5 000



### 38.2 A drill with opening and closing accruals, etc.

Each separate business below operates on a cash only basis, and does not keep double entry accounts. In each case, explain the significance of the information given, and produce a reconciliation between the value of sales or expenses paid for in the period, and the value to be reported in the P&L Account.

#### 1.

Cash paid for rent during the period, £8 000. Opening prepayment £300. Closing accrual £700.

1 Rent	£
EXPENSE TRANSACTIONS occurring in the period (value paid for in money in current period)	8 000
plus opening prepayment (value paid for in previous period, but consumed in this period)	300
plus closing accrual (value consumed but not yet paid for)	700
EXPENSE REPORTED in P&L ACCOUNT = value consumed in current period	<u>£9 000</u>

#### 2.

Cash paid for electricity during the period, £5 000. Opening accrual £250. Closing prepayment £750.

2 Electricity	£
EXPENSE TRANSACTIONS occurring in the period (value paid for in current period)	5 000
minus closing prepayment (value paid for in this period, but not yet consumed)	( 750)
minus opening accrual (value paid for in this period, but consumed in previous period)	( 250)
EXPENSE REPORTED in P&L ACCOUNT = value consumed in current period	<u>£4 000</u>

**3.**

Cash paid for insurance during period, £450. Opening prepayment £40. Closing prepayment £50.

3 Insurance	£
EXPENSE TRANSACTIONS occurring in the period (value paid for in current period)	450
plus opening prepayment (value paid for in previous period, but consumed in this period)	40
minus closing prepayment (value paid for in this period, but not yet consumed)	( 50)
EXPENSE REPORTED in P&L ACCOUNT = value consumed in current period	<u>£ 440</u>

**4.**

Cash paid for subscription to trade association during period, £60. Opening accrual £15. Closing accrual £20.

4 Subscription	£
EXPENSE TRANSACTIONS occurring in the period (value paid for in current period)	60
minus opening accrual (value paid for in this period, but consumed in previous period)	( 15)
plus closing accrual (value consumed but not yet paid for)	20
EXPENSE REPORTED in P&L ACCOUNT = value consumed in current period	<u>£ 65</u>

**5.**

Cash received for sales during the period, £8 000. Opening accrued income £750.  
Closing deferred income £250.

5 Sales	£
SALES TRANSACTIONS occurring in the period (value paid for in current period)	8 000
minus closing deferred income (value paid for in this period, but not yet delivered)	( 250)
minus opening accrued income (value paid for in this period, but delivered in previous period)	( 750)
SALES REPORTED in P&L ACCOUNT = value delivered in current period	<u>£7 000</u>

**6.**

Cash received for sales during the period, £5 000. Opening deferred income £700.  
Closing accrued income £300.

6 Sales	£
SALES TRANSACTIONS occurring in the period (value paid for in current period)	5 000
plus opening deferred income (value paid for in previous period, but delivered in this period)	700
plus closing accrued income (value delivered but not yet paid for)	300
SALES REPORTED in P&L ACCOUNT = value delivered in current period	<u>£6 000</u>

**7.**

Cash received for sales during the period, £7 900. Opening accrued income £400.  
Closing accrued income £100.

7 Sales	£
SALES TRANSACTIONS occurring in the period (value paid for in current period)	7 900
minus opening accrued income (value paid for in this period, but delivered in previous period)	( 400)
plus closing accrued income (value delivered but not yet paid for)	100
SALES REPORTED in P&L ACCOUNT = value delivered in current period	<u>£7 600</u>

**8.**

Cash received for sales during the period, £4 800. Opening deferred income £200.  
Closing deferred income £700.

8 Sales	£
SALES TRANSACTIONS occurring in the period (value paid for in current period)	4 800
plus opening deferred income (value paid for in previous period, but delivered in this period)	200
minus closing deferred income (value paid for in this period, but not yet delivered)	( 700)
SALES REPORTED in P&L ACCOUNT = value delivered in current period	<u>£4 300</u>

**39.1 An exercise on accruals etc. in accounting software**

State and explain the accounting entries necessary to account for the following year-end adjustments in a computerized accounting system. Also state and explain the accounting entries necessary to reverse the adjustments in the following period.

1. deferred income
2. accrued income
3. a prepayment
4. an accrual

**1. for deferred income:**

Double entry at the year-end is

<b>DR</b>	<b>Sales</b>	<b>£X</b>	
<b>CR</b>	<b>Deferred Income</b>		<b>£X</b>

to remove undelivered sales from the Sales Account, and show the liability to deliver in the balance sheet. The balance remaining on the Sales Account can now be automatically transferred to the P&L Account, while the balance on the Deferred Income Account will be shown as a liability in the balance sheet.

Double entry at the start of the following period is:

<b>DR</b>	<b>Deferred Income</b>	<b>£X</b>	
<b>CR</b>	<b>Sales</b>		<b>£X</b>

to cancel opening deferred income (the liability to deliver), and replace it in the Sales Account to represent actual delivery in the period to come.

**2. for accrued income:**

Double entry at the year-end is

<b>DR</b>	<b>Accrued Income</b>	<b>£X</b>	
<b>CR</b>	<b>Sales</b>		<b>£X</b>

to add the value of sales not yet recorded to value already in the Sales Account, and show the right to collect payment (accrued income) as an asset in the balance sheet.

Double entry at the start of the following period is:

<b>DR</b>	<b>Sales</b>	<b>£X</b>	
<b>CR</b>	<b>Accrued Income</b>		<b>£X</b>

to cancel the opening accrued income or right to collect payment (it will be replaced by an actual debtor when the sale is properly recorded) and cancel the sale that will eventually be recorded in the Sales Account (because it has already been included in the previous P&L Account).

**3. for a prepayment:**

Double entry at the year-end is

<b>DR</b>	<b>Prepayment</b>	<b>£X</b>	
<b>CR</b>	<b>Expense Account</b>		<b>£X</b>

to remove from the Expense Account the value of expenses not yet received or consumed, and to show the right to receive that value as an asset (prepayment) in the balance sheet.

Double entry at the start of the following period is:

<b>DR</b>	<b>Expense Account</b>	<b>£X</b>	
<b>CR</b>	<b>Prepayment</b>		<b>£X</b>

to cancel the opening prepayment or right to receive value, and show the value now in the Expense Account as an input for consumption in the period.

**4. for an accrual:**

Double entry at the year-end is

<b>DR</b>	<b>Expense Account</b>	<b>£X</b>	
<b>CR</b>	<b>Accrual</b>		<b>£X</b>

to include in the Expense Account the value of expenses consumed in the period, but not yet recorded in the accounts, and to show the liability to pay for that value as a liability (accrual) in the balance sheet.

Double entry at the start of the following period is:

<b>DR</b>	<b>Accrual</b>	<b>£X</b>	
<b>CR</b>	<b>Expense Account</b>		<b>£X</b>

to cancel the opening accrual or liability to pay for value consumed, and to cancel the entry that will be made in the Expense Account when the transaction is eventually recorded.

**40.1 An exercise on the potential abuse of accounting for accruals, etc.**

State and explain the effect of each of the following actions or situations on the reported profit of the current period and on the firm's net assets at the end of the period:

**1. making an inappropriate (excessive) adjustment for deferred income****Response**

An inappropriate (excessive) adjustment for deferred income would reduce the reported profit of the current period by pushing some of the sales recorded in the current period into the P&L Account of the next period. It would also reduce reported net assets in the balance sheet by creating an unnecessary current liability.

**2. making an inappropriate (excessive) adjustment for accrued income****Response**

An inappropriate (excessive) adjustment for accrued income would increase the reported profit of the current period by pulling some of the sales to be recorded in the next period into the P&L Account of the current period. It would also increase reported net assets in the balance sheet by creating an unnecessary current asset.

**3. making an inappropriate (excessive) adjustment for a prepayment****Response**

An inappropriate (excessive) adjustment for a prepayment would increase the reported profit of the current period by pushing some of the expenses recorded in the current period into the P&L Account of the next period. It would also increase reported net assets in the balance sheet by creating an unnecessary current asset.



4. making an inappropriate (excessive) adjustment for an accrual

**Response**

An inappropriate (excessive) adjustment for an accrual would reduce the reported profit of the current period by pulling some of the expenses to be recorded in the next period into the P&L Account of the current period. It would also reduce reported net assets in the balance sheet by creating an unnecessary current liability.

5. failing to make an appropriate adjustment for deferred income

**Response**

Failing to make an appropriate adjustment for deferred income would increase the reported profit of the current period, by including in the P&L Account some sales that had not yet been delivered. It would also increase reported net assets in the balance sheet by failing to recognize the liability to deliver those sales in the next period.

6. failing to make a necessary adjustment for accrued income

**Response**

Failing to make a necessary adjustment for accrued income would reduce the reported profit of the current period, by failing to include in the P&L Account some sales that had been delivered in the period. It would also decrease reported net assets in the balance sheet by failing to recognize the right to receive payment for those sales as an asset.

7. failing to make a necessary adjustment for a prepayment

**Response**

Failing to make a necessary adjustment for a prepayment would reduce the reported profit of the current period, by failing to exclude from the P&L Account some expenses – already recorded or paid for – that had not been received or consumed in the period. It would also decrease reported net assets in the balance sheet by failing to recognize the right to receive or consume the relevant input as an asset.

8. failing to make a necessary adjustment for an accrual

**Response**

Failing to make a necessary adjustment for an accrual would increase the reported profit of the current period, by failing to include in the P&L Account some expenses – not yet paid for or recorded – that been consumed in the period. It would also increase reported net assets in the balance sheet by failing to recognize the liability to pay for the relevant inputs.

9. overestimating the useful life of a fixed asset

**Response**

Overestimating the useful life of a fixed asset would increase the reported profit of the current period, by reducing the depreciation expense reported in the P&L Account. It would also increase reported net assets in the balance sheet, by reporting a smaller provision for depreciation.

10. underestimating the residual value of a fixed asset

**Response**

Underestimating the residual value of a fixed asset would decrease the reported profit of the current period by increasing the depreciation expense reported in the P&L Account. It would also decrease reported net assets in the balance sheet, by reporting a bigger provision for depreciation.

## 40.2 An exercise on prudence and the principle of accruals

Is the principle of accruals fully consistent with the principle of prudence?  
Identify two cases in which you think they may conflict, and explain how you would resolve the difficulty.

### Response

The principle of accruals or matching is the doctrine that income and related expenditure should be matched against each other and presented in the same P&L Account.

The principle of prudence is the doctrine that the accountant should take special care to ensure that revenue is not recognized in the P&L Account until it has been properly earned by the delivery of goods or services, that profits and net assets are not overstated, and that losses and liabilities should be recognized as soon as they occur.

Clearly there is scope for conflict when transactions concerning income and related expenditure do not occur in the same period. Normally a firm must incur expenses in order to create goods or services, before it is able to collect any revenue from selling goods and services. To apply the principle of matching very strictly, we should not show such expenses in the P&L Account until there are related sales to match them against. By deferring the recognition of expenses, this would conflict with the principle of prudence.

One such case would be the cost of exploring for oil or other mineral resources. This is a cost that may be matched against the future revenues to be gained from extracting and selling the resources. But in view of the uncertainty as to whether the exploration will be successful, it would be advisable to follow the principle of prudence, and recognize the costs of exploration as an expense in the current P&L Account as it occurs.

A contrasting case might be the costs of developing infrastructure to exploit a proven mineral resource. In this case, it may be preferable to follow the principle of accruals, and treat such costs as relating to the creation of a fixed asset, to be matched through depreciation against the revenue to be gained from exploitation of the resource.

**41.1 An exercise on the principle of prudence**

Firm A has been notified that it will almost certainly have to pay a fine of £1 000 in the near future, while Firm B has been notified that it will almost certainly be awarded a prize of £1 000 in the near future.

How should each firm account for the news? Explain your answer with reference to the accounting principle of prudence.

**Response**

The principle of prudence demands that provision must be made for all known losses and liabilities, even if these are not known with certainty. It follows that Firm A should immediately recognize the loss associated with the fine in its current P&L Account, and recognize its almost certain liability to pay the fine in its balance sheet.

Firm B could likewise recognize the profit associated with the award in its current P&L Account, and the possible right to receive the award as an asset in its balance sheet. However, the principle of prudence states that revenue should not be anticipated – that is, revenue should not be recognized in the P&L Account until it is properly earned and/or the business has collected money or has a right to collect money. Thus Firm B should not recognize the prize in its accounts until the result is officially confirmed.

## 41.2 An exercise on prudence and probabilities

A firm is sued for damages of £100. According to the best advice, there is a 50% chance that the firm will lose the case and have to pay £100, and a 50% chance that the case will be dismissed and the firm will have nothing to pay.

Should the firm make a provision? If so, for how much?

### Response

The alternatives appear to be:

1. Ignore the case and make no provision, because there is a 50% chance that the firm will not have to pay the damages.
2. Make a provision for £100, because there is a fair chance that the firm will have to pay the damages.
3. Make a provision of £50, because that, on a statistical basis, is the expected value of the fine.

There are all sorts of unpleasant eventualities of low probability for which a firm does not and should not make provision, but in this case Option 1, making no provision, seems to be imprudent when the probability of the fine arising is as high as 50%.

Option 3, making a provision for £50 to reflect the 50% chance of paying damages of £100, has an interesting appeal in logic, and might well be the best course of action if the firm were facing a large number of independent claims, each with a known probability.

This leaves Option 2 – making a provision of £100 – to be accepted by default. Investors would then at least be aware of the full extent of the potential loss involved.

NOTE: readers should be aware that there can hardly be a right answer to such questions as this, which do arise in real life, where both the values and the probabilities cannot be known with any degree of certainty. Accountants cannot escape the exercise of judgement.

### 42.1 A drill to practise setting up and adjusting provisions for expected liabilities

REQUIRED: for each set of data below, show a P&L Account extract for each of the relevant years, and an account for the relevant provision with the balance at the end of each year.

#### Business 1

YEAR 1: a business dismisses an employee for (alleged) gross misconduct. The employee sues the business for wrongful dismissal. The business is advised by its lawyers that it may be found liable for damages in the sum of £200 000 if the case comes to court.

YEAR 2: the case remains undecided.

YEAR 3: the case remains undecided, but lawyers advise the firm that the maximum liability it would face is probably not more than £150 000.

P&L 1		Provision	
			P&L 1 new provision 200 000 = balance at end of YR1
new provision	200 000		
P&L 2			
		c/f	200 000
			200 000
			200 000
			balance at end of YR2 200 000
P&L 3			
		decrease in YR 3	50 000
		c/f	150 000
			200 000
			200 000
			balance at end of YR3 150 000
	decrease in provision		50 000

## Business 2

YEAR 1: an engineering firm builds a bridge which falls down. The firm is sued for damages and expects to lose £200 000.

YEAR 2: lawyers advise the firm that it will probably be found liable for damages of £250 000.

YEAR 3: the case remains undecided.

P&L 1	
<i>new provision</i>	200 000
P&L 2	
<i>increase in provision</i>	50 000
P&L 3	

Provision		
	<i>P&amp;L 1</i>	200 000
	<i>new provision</i>	
	<b>= balance at end of YR1</b>	
	<i>increase in YR 2</i>	50 000
c/f	<u>250 000</u>	
	<u>250 000</u>	<u>250 000</u>
	<i>balance at end of YR2</i>	250 000
c/f	<u>250 000</u>	
	<u>250 000</u>	<u>250 000</u>
	<i>balance at end of YR3</i>	250 000



### Business 3

YEAR 1: a customer visiting the premises of a business falls down, breaks her leg, and sues the business for £15 000. The business denies liability, and at the end of the year the case is not yet decided, but the business is advised by its lawyer that it is likely to be found liable for damages in the sum of £12 000.

YEAR 2: the case remains undecided.

YEAR 3: it emerges that the customer ignored repeated safety warnings and forced the lock on a door in order to enter the area where she fell down. The case is therefore dropped.

P&L 1	
new provision	12 000
P&L 2	
P&L 3	
release of provision	12 000

  

Provision	
	P&L 1 new provision = balance at end of YR1 12 000
c/f	12 000
	<u>12 000</u>
	balance at end of YR2 12 000
decrease in YR 3	12 000
	<u>12 000</u>



**42.2 An exercise on comparing provisions and potential assets**

A customer sues a food manufacturer, having consumed a contaminated product. The manufacturer is likely to lose the case, but the contamination is traced to an ingredient bought in from another supplier. The food manufacturer sues the supplier, and is likely to win the case.

Should the food manufacturer make a provision for the damages claimed by the customer? Give reasons for your answer.

**Response**

The manufacturer here has a probable liability to pay compensation to the customer, but also a probable asset in the form of a strong claim against the supplier. It might be argued that the probable asset would cover the probable liability, and thus no provision need be made for the liability.

However, a strict application of the principle of prudence would require the firm to create a provision immediately for the probable liability, while not recognizing the probable asset until the verdict of the court is actually delivered.

**REQUIRED:** for each set of data below, show the necessary entries on a provision account, with an extract from the P&L Account for each relevant year, plus an account for money and promises.

YEAR 1: A firm is investigated, and conclusive evidence is found that the firm has been breaking regulations for which there is a mandatory fine of £50 000. The case will come to court in Year 2.

The case comes to court and the firm is duly fined £50 000.

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## Business 2

YEAR 1: a firm discovers a major crack in the wall of a building which will have to be repaired in Year 2. It is estimated that the repair will cost £15 000.

P&L 1		Provision for Repairs	
<i>new provision</i>	15 000		
		<i>P&amp;L 1 new provision = balance at end of YR1</i>	15 000

YEAR 2: the crack is repaired at an actual cost of £14 000.

P&L 1		Provision for Repairs	
<i>new provision</i>	15 000		
		<i>P&amp;L 1 new provision = balance at end of YR1</i>	15 000
		<i>P&amp;L 2 release of provision</i>	15 000
		<u>15 000</u>	<u>15 000</u>
P&L 2		Money & Promises	
<i>repair cost</i>	14 000		
		<i>Year 2 payment for repairs</i>	14 000
	<i>release of provision</i>		
	15 000		

### Business 3

YEAR 1: all firms operating in Dystopia are informed that they will be required to make a one-off contribution to a fund for the development of the capital city. Firm A believes that it will be required to make a contribution of £900.

P&L 1		Provision for New City	
		<i>P&amp;L 1</i>	
		<i>new provision</i>	900
		<i>= balance at</i>	
		<i>end of YR1</i>	
<i>new provision</i>	900		

YEAR 2: Firm A pays its actual contribution, which is actually fixed at £950.

P&L 1		Provision for New City	
		<i>P&amp;L 1</i>	
		<i>new provision</i>	900
		<i>= balance at</i>	
		<i>end of YR1</i>	
<i>new provision</i>	900		

  

P&L 2		Provision for New City	
		<i>P&amp;L 2 release</i>	
		<i>of provision</i>	900
		<u>900</u>	<u>900</u>
<i>contribution to new city</i>	950		

  

Money & Promises	
<i>contribution paid</i>	950

**Business 4 (slightly trickier)**

YEAR 1: the chairman of a baby-food manufacturing firm promises to give one million pounds to a global fund for fighting child poverty.

P&L 1		Provision for Fund	
			<i>P&amp;L 1</i>
<i>new provision</i>	1 000 000		<i>new provision</i> 1 000 000
			<b>= balance at end of YR1</b>

YEAR 2: the firm pays £500 000 to the fund.

P&L 2		Provision for Fund	
			<i>P&amp;L 1</i> 1 000 000
<i>contribution to fund</i>	500 000		<i>new provision</i>
			<b>= balance at end of YR1</b>
		<i>P&amp;L 2 release of provision</i>	
		c/f	
		500 000	
		500 000	
		<u>1000 000</u>	<u>1000 000</u>
			<b>balance at end of YR 2</b> 500 000

  

Money & Promises	
	<i>contribution paid Year 2</i> 500 000

YEAR 3: the firm pays another £500 000 to the fund.

P&L 3		Provision for Fund	
			<i>P&amp;L 1</i> 1 000 000
<i>contribution to fund</i>	500 000		<i>new provision</i>
			<b>= balance at end of YR1</b>
		<i>P&amp;L 2 release of provision</i>	
		c/f	
		500 000	
		500 000	
		<u>1000 000</u>	<u>1000 000</u>
			<b>balance at end of YR 2</b> 500 000
		<i>P&amp;L 3 release of provision</i>	
		500 000	
		<u>500 000</u>	<u>500 000</u>

  

Money & Promises	
	<i>contribution paid Year 2</i> 500 000
	<i>contribution paid Year 3</i> 500 000

### 43.2 An exercise on the accounting disclosure of future events and transactions

**REQUIRED:** describe at least two ways in which the following events or situations could or should be accounted for in Year 1 and Year 2, and state which way you would choose if you were responsible for preparing the firm's final accounts.

**YEAR 1:** a firm decides to upgrade its manufacturing capacity, and places an order for a new fixed asset costing £30 000.

**YEAR 2:** the fixed asset is delivered at a cost of £30 000 as expected, and paid for.

Are there any further facts, not stated above, that might be relevant to your decision?

#### Response

Option 1 would be ignore the events of Year 1 altogether in the accounts (easy to do because no payment has been made), and simply record the acquisition of the fixed asset in Year 2.

Option 2 would be to record the order in Year 1 as a promise to pay going out, with the right to receive a fixed asset coming in. In Year 2 the right to receive the fixed asset would be replaced in the accounts by the fixed asset itself.

The problem for accountants is that once an order has been placed, the firm will probably have a binding liability to pay for it, which the owners of the firm would wish to know about. On the other hand, until the fixed asset is received, its value (and the value of the firm's liability to pay for it) remains in some degree of doubt. Further information relevant to the decision might therefore include the exact terms of the order placed with the supplier.

A frequent compromise in such situations is to record nothing in the accounts in Year 1, but disclose information about the order in a note to the accounts.



**44.1 A drill to practise using provisions to match future expenditure against current revenue**

REQUIRED: for each set of data below, show the necessary entries on a provision account, with an extract from the P&L Account for each relevant year, plus an account for money and promises.

### Business 1

YEAR 1: a firm runs a small lottery, selling 100 tickets for £1 each, and offering a prize of £90. At the end of Year 1, all 100 tickets have been sold, but the winner has not yet been selected.

P&L 1	
	Sales 100
provision for prize 90	

  

Money & Promises	
cash received Year 1 100	

  

Provision	
	P&L 1 new provision = balance at end of YR1 90

YEAR 2: the winner of the lottery is selected and given the prize of £90.

P&L 2	
prize paid 90	release of provision 90

  

Money & Promises	
cash received Year 1 100	
	prize paid Year 2 90

  

Provision	
	P&L 1 new provision = balance at end of YR1 90
P&L 2 release of provision 90	
<u>90</u>	<u>90</u>

## Business 2

YEAR 1: a farmer rents a field to a motor-cycling club for the whole of Year 1, for a rent of £1 000. The farmer expects that he will have to pay costs of £300 to restore the land to agricultural use in Year 2.

P&L 1	
	rental income 1 000
provision for restoration	300

  

Money & Promises	
	cash received Year 1 1 000

  

Provision	
	P&L 1 new provision = balance at end of YR1 300

YEAR 2: the actual cost to restore the land is £310.

P&L 2	
restoration costs	310
	release of provision 300

  

Money & Promises	
cash received Year 1	1 000
	costs paid Year 2 310

  

Provision	
	P&L 1 new provision = balance at end of YR1 300
P&L 2 release of provision	300
	<u>300</u>
	<u>300</u>

### Business 3

YEAR 1: a business takes a three-year lease on a property, with an undertaking to fully redecorate the property before leaving at the end of the third year. It is estimated that the cost of redecoration will be £1 500.

P&L 1		Provision for Redecoration	
Year 1 provision for redecoration	500		
		P&L 1 new provision = balance at end of YR1	500

YEAR 2: the business continues to occupy the property.

P&L 2		Provision for Redecoration	
Year 2 provision for redecoration	500		
			P&L 1 new provision = balance at end of YR1 500
		c/f 1 000	P&L 2 further provision 500
		<u>1 000</u>	<u>1 000</u>
			balance at end of YR 2 1 000

YEAR 3: the business occupies the property until the end of the year, and redecorates at a cost of £1 400 before leaving.

P&L 3		Provision for Redecoration	
actual cost of redecoration 1 400	release of provision 1 000		
			P&L 1 new provision = balance at end of YR1 500
		c/f 1 000	P&L 2 further provision 500
		<u>1 000</u>	<u>1 000</u>
			balance at end of YR 2 1 000
Money & Promises			
	costs paid Year 3 1 400	P&L 3 release of provision 1 000	
		<u>1 000</u>	<u>1 000</u>

## Business 4

YEAR 1: a mining business develops a new site which it believes will have a three-year useful life. Environmental legislation demands that the business must clean up the site after its operations, and it is estimated that after three years of operations, the cost of cleaning up (to be paid in Year 4) will be £600 000.

P&L 1		Provision for Redecoration	
Year 1 provision for clean up	200 000	P&L 1 new provision	200 000
		= balance at end of YR1	

YEAR 2: as a result of stricter environmental legislation, it is now estimated that the cost of cleaning up will be £800 000.

P&L 2		Provision for Redecoration	
Year 2 provision for clean up	300 000		
			P&L 1 new provision = <b>balance at end of YR1</b> 200 000
		c/f 500 000	<b>P&amp;L 2 further provision</b> 300 000
		<u>500 000</u>	<u>500 000</u>
			<b>balance at end of YR 2</b> 500 000

**Business 4 cont'd**

YEAR 3: the business continues to operate the site until the end of the year.

However, technological improvements indicate that the cost of cleaning up will probably be only £700 000.

<b>P&amp;L 3</b>		<b>Provision for Redecoration</b>	
<i>Year 3 provision for clean up</i> 200 000			<i>P&amp;L 1 new provision</i> 200 000 <i>= balance at end of YR1</i>
		<i>c/f</i> 500 000	<i>P&amp;L 2 further provision</i> 300 000 500 000 500 000
			<i>balance at end of YR 2</i> 500 000 <i>P&amp;L 3 further provision</i> 200 000 700 000 700 000
			<i>balance at end of YR 3</i> 700 000

YEAR 4: the site is cleaned up at an actual cost of £670 000.

<b>P&amp;L 4</b>		<b>Provision for Redecoration</b>	
<i>actual cost for clean up</i> 670 000	<i>release of provision</i> 700 000		<i>P&amp;L 1 new provision</i> 200 000 <i>= balance at end of YR1</i>
		<i>c/f</i> 500 000	<i>P&amp;L 2 further provision</i> 300 000 500 000 500 000
			<i>balance at end of YR 2</i> 500 000 <i>P&amp;L 3 further provision</i> 200 000 700 000 700 000
		<i>P&amp;L 4 release of provision</i> 700 000	<i>balance at end of YR 3</i> 700 000

  

<b>Money &amp; Promises</b>	
	<i>costs paid Year 4</i> 670 000

**45.1 A drill to practise the use of rolling provisions**

REQUIRED: for each set of data below, show an extract from the P&L Account for each relevant year, plus an account for the relevant provision.

## Business 1

The business guarantees to repair, free of charge, any of its sales that prove defective within one year of sale.

YEAR 1: sales for the year are £600 000. The business estimates that repair costs on these goods will be 5% of their sales value.

P&L 1		Provision for Repairs	
	Sales 600 000		
Year 1 provision for repairs	30 000	P&L 1 new provision = balance at end of YR1	30 000

YEAR 2: actual repair costs are £31 000. Sales for the year are £800 000, and the business continues to estimate that repair costs will be 5% of the value of goods sold.

P&L 2		Provision for Repairs	
	Sales 800 000		
actual repair cost	31 000		P&L 1 new provision = balance at end of YR1 30 000
increase in provision	10 000	c/f 40 000	P&L 2 increase in provision 10 000
		<u>40 000</u>	<u>40 000</u>
			balance at end of YR 2 40 000

YEAR 3: actual repair costs are £38 000. Sales for the year are £900 000. The business has made improvements to the quality of its goods and now believes that repair costs will be only 4% of the value of goods sold.

P&L 3		Provision for Repairs	
	Sales 900 000		
actual repair cost	38 000		P&L 1 new provision = balance at end of YR1 30 000
	decrease in provision 4 000	c/f 40 000	P&L 2 increase in provision 10 000
		<u>40 000</u>	<u>40 000</u>
		P&L 3 decrease in provision 4 000	balance at end of YR 2 40 000
		c/f 36 000	
		<u>40 000</u>	<u>40 000</u>
			balance at end of YR 3 36 000



## Business 2

A school offers courses which last one year. Students pay for the whole course in advance, but are guaranteed a full refund of their fees if they do not pass the public examination at the end of their course. Unfortunately, the accounting year-end of the school falls between the end of the course and the announcement of the examination results.

YEAR 1: sales for the year are £250 000. The school estimates that 10% of the students awaiting results at the end of the year will fail the examination and require a refund.

P&L 1		Provision for Refunds	
	Sales 250 000		
Year 1 provision for refunds	25 000		
		P&L 1 new provision = balance at end of YR1	25 000

YEAR 2: actual refunds to the previous year's students are £23 000. Sales for the year are £300 000. Higher standards are now expected in the examination, and the school estimates that 15% of the students will fail the examination and require a refund.

P&L 2		Provision for Refunds	
	Sales 300 000		
actual refund cost	23 000		
increase in provision	20 000		
		c/f	45 000
			45 000
			P&L 1 new provision = balance at end of YR1
			25 000
			P&L 2 increase in provision
			20 000
			45 000
			balance at end of YR 2
			45 000

YEAR 3: actual refunds to the previous year's students are £45 000. Sales for the year are £280 000. Once again, the school estimates that 15% of the students will fail the examination and require a refund.

P&L 3		Provision for Refunds	
	Sales 280 000		
actual refund cost	45 000		
	decrease in provision		
	3 000		
		c/f	45 000
			45 000
			P&L 1 new provision = balance at end of YR1
			25 000
			P&L 2 increase in provision
			20 000
			45 000
			balance at end of YR 2
			45 000
		P&L 3 decrease in provision	3 000
		c/f	42 000
			45 000
			balance at end of YR 3
			42 000

**46.1 An exercise on the effect of making or not making provisions**

State how the following actions would affect the reported profit of a firm in the current period and in the next period(s):

- a) failure to make a provision when required
- b) making a provision when not required.

**Response**

- a) Failure to make a provision when required will mean that the reported profit of the current period will be overstated, and the reported profit of the next period(s) will be understated.
- b) Making a provision when it is not required will mean that the reported profit of the current period will be understated, and the reported profit of the next period(s) – when the unnecessary provision is released, will be overstated.

## 46.2 An exercise on the nature of provisions

‘A provision is a warning sign’. But what is its purpose? What does it warn us to do or abstain from doing?

### Response

A provision warns of the existence of a probable future liability, and shows how the liability would impact on the net assets of the firm, and hence on the owner’s claim on the firm.

Provisions therefore warn us to prepare for the eventual real existence of a probable liability, and to abstain from actions based on the assumption that such liability will not arise. Most notably, perhaps, provisions warn investors not to withdraw and spend extra net assets in a business, when the extra value may be needed pay off a probable liability in the future, and warn other readers of the firm’s accounts (creditors) not to assume that theirs are the only claims on the assets in the firm.

### 46.3 An exercise to compare the treatment of potential liabilities against the treatment of potential assets

While provisions are commonplace, there is no device in accounting for the recognition of potential assets or revenue that will be earned in the future. If such a device did exist, how would it work? Give a numerical example. Explain why no such device is openly used in accounting.

#### Response

A potential asset could be recognized in the accounts with a DR in a provisional asset account. The corresponding CR could be made either in the P&L Account (in which it would contribute to the profit that would be transferred to the capital account) or directly in the Capital Account itself, or in a dummy capital account (in the same way that a provision is a dummy liability account). The double entry would be:

DR	Provisional Asset	£X	
CR	P&L or Capital Account		£X

Thus if a firm with assets £700 and liabilities £200 decided to recognize a provisional asset value £100, its balance sheet would change as shown below:

<i>BALANCE SHEET before provision</i>		<i>BALANCE SHEET after provision</i>	
	£		£
Assets	700	Assets	700
Liabilities	(200)	<i>Provisional Asset</i>	<u>100</u>
Net Assets	<u>£500</u>		800
		Liabilities	(200)
		Net Assets	<u>£600</u>
Capital	<u>£500</u>		
		Capital b/f	500
		<i>'profit' from recognition of provisional asset</i>	<u>100</u>
		Capital c/f	<u>£600</u>

This procedure is not properly employed in accounting, because by potentially overstating assets and profits, it violates the principle of prudence.

### 47.1 A drill to practise accounting for discounts

REQUIRED: from each set of data below, prepare:

- a debtors account and/or a creditors account, and
- a P&L Account extract concerning discounts allowed and/or discounts received.

#### BUSINESS 1

	£		£
opening debtors	11 000	opening creditors	7 000
sales on credit	48 000	purchases on credit	26 000
cash received from debtors	50 960	cash paid to creditors	26 325
discount allowed	1 040	discount received	675

Debtors				Creditors			
b/f	11 000	cash received	50 960	cash paid	26 325	b/f	7 000
sales	48 000	discount allowed	1 040	discount received	675	purchases	26 000
		c/f	7 000	c/f	6 000		
	<u>59 000</u>		<u>59 000</u>		<u>33 000</u>		<u>33 000</u>
b/f	7 000					b/f	6 000

P&L			
discount allowed	1 040	discount received	675

**BUSINESS 2**

	£		£
opening debtors	13 000	opening creditors	8 000
sales on credit	57 000	purchases on credit	32 000
cash received from debtors	56 550	cash paid to creditors	28 275
discount allowed	1 450	discount received	725

Debtors			
<i>b/f</i>	13 000	<i>cash received</i>	56 550
<i>sales</i>	57 000	<b>discount allowed</b>	<b>1 450</b>
		<i>c/f</i>	12 000
	<u>70 000</u>		<u>70 000</u>
<i>b/f</i>	12 000		

Creditors			
<i>cash paid</i>	28 275	<i>b/f</i>	8 000
<b>discount received</b>	<b>725</b>	<i>purchases</i>	32 000
<i>c/f</i>	11 000		
	<u>40 000</u>		<u>40 000</u>
		<i>b/f</i>	11 000

P&L			
<b>discount allowed</b>	<b>1 450</b>	<b>discount received</b>	<b>725</b>

**BUSINESS 3**

A firm sells only on credit, and offers a discount of 2% to customers who pay within four weeks of invoice. Debtors at the start of the year are £20 000, and sales for the year are £250 000. Customers originally owing £100 000 pay within the relevant period, taking the discount allowed. £140 000 is received from other customers.

<i>Debtors</i>				<i>P&amp;L</i>	
<i>b/f</i>	20 000	<i>full payments received</i>	140 000		
<i>sales</i>	250 000	<i>discounted payments rec'd</i>	98 000		
		<i>discount allowed</i>	2 000	<i>discount allowed</i>	2 000
		<i>c/f</i>	30 000		
	<u>270 000</u>		<u>270 000</u>		
<i>b/f</i>	30 000				

**BUSINESS 4**

A firm buys exclusively on credit. One major supplier offers a discount of 2.5% for payment within 30 days of invoice. The firm always takes advantage of this discount. Creditors at the start of the year are £25 000. Purchases during the year are £300 000. The firm pays a total of £275 000 to creditors during the year, including a payment in respect of an original £200 000 owed to the supplier who offers the discount.

Creditors				P&L	
<i>full payments made</i>	80 000	<i>b/f</i>	25 000		
<i>discounted payments made</i>	195 000	<i>purchases</i>	300 000		
<i>discount received</i>	5 000				<i>discount received</i> 5 000
<i>c/f</i>	45 000				
	<u>325 000</u>		<u>325 000</u>		
		<i>b/f</i>	45 000		



## 47.2 An exercise on accounting for price discounts

In accounting, price discounts are normally considered only as insofar as they affect the calculation of a selling price. Once a selling price has been determined, the transaction is recorded at that price, with no separate record of the discount.

### BUSINESS 5

At the height of the ‘dot.com boom’ (leading up to the year 2000) when the commercial exploitation of the Internet seemed to offer immeasurable wealth to the firms that got there first, new companies building a business on the Internet were rated by investors and analysts on the basis of sales growth. Profits were not expected. The essential thing was to gain customers and sales, from which it was expected that profits would flow in the future.

One such firm offered a *price* discount of £50 on all sales of £50 or more, and was immediately swamped with orders for goods with a value of exactly £50, or very little more.

Describe at least two ways in which these transactions *could* be reported in a firm’s P&L Account, and state the way in which the company (in the circumstances) would be most likely to account for them. Comment.

### Response

**Option 1:** the convention accounting for price discounts is to take the agreed price to be paid as the value of the transaction to be recorded. Thus if goods with a list price of £54 are sold (after a special price discount of £50) for £4, the double entry to record the sale would be:

DR	Money or Promises	£4	
CR	Sales		£4

**Option 2:** a less conventional approach would be to account for such a sale at the full price of £54, with money or promises of only £4 coming in to pay for the sale, and the £50 special price discount recorded as an expense in the P&L Account like this:

DR	Money or Promises	£4	
DR	Special Price Discount (P&L Account)	£50	
CR	Sales		£54

In the circumstances the company would be most likely to adopt option 2 – this would inflate reported sales, in line with investors' wishes.

### 48.1 A drill to practise accounting for bad and doubtful debts

REQUIRED: for each set of data below, prepare a debtors account and a P&L Account extract concerning (where necessary): discounts allowed, bad debts written off, and/or bad debts recovered.

#### A

	£
opening debtors	12 000
sales on credit	72 500
cash received from debtors	70 000
bad debts written off	3 500

Debtors			
<i>b/f</i>	12 000	<i>cash received</i>	70 000
<i>sales</i>	72 500	<i>written off</i>	3 500
		<i>c/f</i>	11 000
	<u>84 500</u>		<u>84 500</u>
<i>b/f</i>	11 000		

P&L	
<i>bad debt written off</i>	3 500

#### B

	£
opening debtors	19 500
sales on credit	210 500
cash received from debtors	207 000
bad debts written off	4 000

Debtors			
<i>b/f</i>	19 500	<i>cash received</i>	207 000
<i>sales</i>	210 500	<i>written off</i>	4 000
		<i>c/f</i>	19 000
	<u>230 000</u>		<u>230 000</u>
<i>b/f</i>	19 000		

P&L	
<i>bad debt written off</i>	4 000

**C**

	£
opening debtors	5 600
sales on credit	68 400
cash received from existing debtors	67 000
cash received from debtors previously written off	750

Debtors				P&L	
<i>b/f</i>	5 600	<i>received from existing debtors</i>	67 000		
<i>sales</i>	68 400				
<i>bad debt reinstated</i>	750	<i>received from debtors previously written off</i>	750		<i>bad debt reinstated</i> 750
		<i>c/f</i>	7 000		
	<u>74 750</u>		<u>74 750</u>		
<i>b/f</i>	7 000				

**D**

	£
opening debtors	57 500
sales on credit	500 000
cash received from existing debtors	510 000
cash received from debtors previously written off	2 500

Debtors				P&L	
<i>b/f</i>	57 500	<i>received from existing debtors</i>	510 000		
<i>sales</i>	500 000				
<i>bad debt reinstated</i>	2 500	<i>received from debtors previously written off</i>	2 500		<i>bad debt reinstated</i> 2 500
		<i>c/f</i>	47 500		
	<u>560 000</u>		<u>560 000</u>		
<i>b/f</i>	47 500				

**E**

	£
opening debtors	57 500
sales on credit	678 000
discounts allowed	10 500
cash received from existing debtors	675 000
cash received from debtors previously written off	4 500
bad debts written off	5 500

<i>Debtors</i>			
<i>b/f</i>	57 500	<i>discounts allowed</i>	10 500
<i>sales</i>	678 000	<i>received from existing debtors</i>	675 000
<i>bad debt reinstated</i>	4 500	<i>received from debtors previously written off</i>	4 500
		<i>bad debts written off</i>	5 500
		<i>c/f</i>	45 000
	<u>740 000</u>		<u>740 500</u>
<i>b/f</i>	45 000		

<i>P&amp;L</i>			
<i>discounts allowed</i>	10 500	<i>bad debt reinstated</i>	4 500
<i>bad debts written off</i>	5 500		

**F**

	£
opening debtors	27 400
sales on credit	172 600
discounts allowed	3 200
cash received from existing debtors	169 300
cash received from debtors previously written off	4 500
bad debts written off	2 700

<i>Debtors</i>			
<i>b/f</i>	27 400	<b>discounts allowed</b>	<b>3 200</b>
<i>sales</i>	172 600	<i>received from existing debtors</i>	169 300
<b>bad debt reinstated</b>	<b>4 500</b>	<i>received from debtors previously written off</i>	4 500
		<b>written off</b>	<b>2 700</b>
		<i>c/f</i>	24 800
	<u>204 500</u>		<u>204 500</u>
<i>b/f</i>	24 800		

<i>P&amp;L</i>			
<b>discounts allowed</b>	<b>3 200</b>	<b>bad debt reinstated</b>	<b>4 500</b>
<b>bad debts written off</b>	<b>2 700</b>		

**49.1 A drill to practise making provision for doubtful debts**

REQUIRED: for each set of data below, prepare a Debtors Account and a Provision for Doubtful Debts Account, with relevant extract from the P&L Account for each year, and extracts from the balance sheet at the end of each year concerning debtors and the provision for doubtful debts.

**A**

	YEAR 1	YEAR 2
	£	£
sales on credit	60 000	72 500
discount allowed	1 200	950
bad debts written off	4 500	3 500
cash received from existing debtors	52 000	63 000
cash received from debtors previously written off		1 500
general provision for bad debts required	8.0%	7.5%

Debtors				Provision for Doubtful Debts			
sales	60 000	discounts allowed	1 200			P&L 1	
		bad debts written off	4 500			new provision	184
		cash received	52 000			= <b>balance at</b>	
		c/f	2 300			<b>end of YR1</b>	
	<u>60 000</u>		<u>60 000</u>			P&L 2 increase	367
b/f	2 300	discounts allowed	950	c/f	551	in provision	<u>551</u>
sales	72 500	bad debts written off	3 500		<u>551</u>	<b>balance at</b>	551
		received from existing debtors	63 000			<b>end of YR 2</b>	
		received from debtors previously written off	1 500				
bad debt reinstated	1 500	c/f	7 350				
	<u>76 300</u>		<u>76 300</u>				
b/f	7 350						

P&L 1		P&L 2	
discounts allowed	1 200	discounts allowed	950
bad debts written off	4 500	bad debts written off	3 500
provision for doubtful debts	184	provision for doubtful debts – increase	367
		bad debt reinstated	1 500

Balance Sheet extracts	end of Year 1	end of Year 2
	£	£
Debtors	2 300	7 350
less provision for doubtful debts	( 184)	( 551)
	<u>£2 116</u>	<u>£6 799</u>



**B**

	YEAR 1	YEAR 2
	£	£
sales on credit	45 600	53 000
discount allowed		870
bad debts written off	2 350	3 000
cash received from existing debtors	39 000	45 000
cash received from debtors previously written off		1 350
general provision for bad debts required	5.0%	6.0%

<i>Debtors</i>			
sales	45 600	bad debts written off	2 350
		cash received	39 000
		c/f	4 250
	<u>45 600</u>		<u>45 600</u>
b/f	4 250	discounts allowed	870
sales	53 000	bad debts written off	3 000
		received from existing debtors	45 000
bad debt reinstated	1 350	received from debtors previously written off	1 350
		c/f	8 380
	<u>58 600</u>		<u>58 600</u>
b/f	8 380		

<i>Provision for Doubtful Debts</i>			
		P&L 1 new provision	212
		= <b>balance at end of YR1</b>	
c/f	503	P&L 2 increase in provision	291
	<u>503</u>		<u>503</u>
		<b>balance at end of YR 2</b>	503

<i>P&amp;L 1</i>	
bad debts written off	2 350
provision for doubtful debts	212

<i>P&amp;L 2</i>	
discounts allowed	870
bad debts written off	3 000
provision for doubtful debts – increase	291
bad debt reinstated	1 350

<b>Balance Sheet extracts</b>	end of Year 1	end of Year 2
	£	£
Debtors	4 250	8 380
less provision for doubtful debts	( 212 )	( 503 )
	<u>£4 038</u>	<u>£7 877</u>

## C

	£
opening debtors	45 000
opening provision for doubtful debts	2 250
sales on credit	382 500
discount allowed	5 750
cash received from debtors	385 000
bad debts written off	4 000
general provision for bad debts required	6.0%

Debtors				Provision for Doubtful Debts			
balance b/f	45 000	discounts allowed	5 750	decrease in provision	285	balance b/f	2 250
sales	382 500	cash received	385 000	c/f	1 965		
		bad debts written off	4 000		<u>2 250</u>		<u>2 250</u>
		c/f	<u>32 750</u>			balance at end of year	<u>1 965</u>
	<u>427 500</u>		<u>427 500</u>				
b/f	32 750						

P&L			
discounts allowed	5 750	decrease in provision for doubtful debts	285
bad debts written off	4 000		

Balance Sheet extract		end of Year
		£
Debtors		32 750
less provision for doubtful debts		<u>(1 965)</u>
		<u>£30 785</u>

**D**

	£
opening debtors	62 000
opening provision for doubtful debts	3 100
sales on credit	527 000
discount allowed	9 500
cash received from existing debtors	385 000
cash received from debtors previously written off	2 500
bad debts written off	7 000
general provision for bad debts required	8.0%

Debtors				Provision for Doubtful Debts			
balance b/f	62 000	discounts allowed	9 500			balance b/f	3 100
sales	527 000	received from existing debtors	385 000			increase in provision	11 900
		received from debtors previously written off	2 500	c/f	15 000		<u>15 000</u>
bad debt reinstated	2 500	bad debts written off	7 000		<u>15 000</u>	balance at end of year	15 000
		c/f	187 500				
	<u>591 500</u>		<u>591 500</u>				
b/f	187 500						

P&L			
discounts allowed	9 500		
bad debts written off	7 000	bad debt reinstated	2 500
increase in provision for doubtful debts	11 900		

Balance Sheet extract		end of Year
		£
Debtors		187 500
less provision for doubtful debts		<u>(15 000)</u>
		<u>£172 500</u>

**49.2 An exercise on factors affecting the provision for doubtful debts**

List the factors or evidence you would consider in deciding whether to create or change a firm's general provision for doubtful debts

**Response**

Factors to be considered in deciding whether to create or change a firm's general provision for doubtful debts would include:

- trends in demand for *customers'* products or services
- intensity of competition in customers' markets
- movement of prices for other customer inputs
- past experience in the business
- the general economic outlook
- movement of interest rates in the economy at large

### 50.1 A drill to practise using the Bad and Doubtful Debts Account

REQUIRED: show the Bad and Doubtful Debts Account of a firm, after recording the following events and situations. Balance the account and make the relevant transfer to the P&L Account.

1. a debt of £75, previously written off as bad, has been recovered
2. a debt of £30 cannot now be collected and should be written off
3. a debt of £47, owed by Debtor X, against which the firm had previously made specific provision, has now been paid
4. a debt of £55, owed by Debtor Y, against which the firm had previously made a specific provision of 100%, now seems to be entirely lost. The debt should be written off and the specific provision should be released
5. a specific provision should be made in respect of Debtor Z, who owes £125
6. an existing general provision for doubtful debts should be decreased by £14

#### Response

<i>Bad and Doubtful Debts Expense Account</i>			
(2) bad debt written off	30	(1) bad debt reinstated	75
		(3) release of specific provision	47
(4) bad debt written off	55	(4) release of specific provision	55
(5) provision for debtor Z	125	(6) decrease of general provision	14
		<b>transfer to P&amp;L</b>	<b>19</b>
	<u>210</u>		<u>210</u>

<i>P&amp;L</i>	
<b>bad and doubtful debt expense</b>	<b>19</b>

## 50.2 A drill to practise reading the Bad and Doubtful Debts Expense Account

REQUIRED: below is a Bad and Doubtful Debts expense account with DR and CR entries. State where you would find the CR corresponding to each DR in the account, and where you would find the DR corresponding to each CR. Balance the account and make the relevant transfer to the P&L Account.

<i>Bad and Doubtful Debt Expense Account</i>			
<i>bad debt written off</i>	60	<i>bad debt recovered</i>	65
<i>Debtor A – written off</i>	45	<i>Debtor A – release of specific provision</i>	25
<i>Debtor B – creation of specific provision</i>	125	<i>Debtor Z – release of specific provision</i>	30
<i>increase in general provision</i>	20		

### Response

1. bad debt written off £60: corresponding CR will be the debtor's account
2. Debtor A written off £45: CR will be in Debtor A's account
3. Debtor B creation of specific provision: CR will be in the Specific Provisions for Doubtful Debts Account
4. increase in general provision: CR will be in the General Provision for Doubtful Debts Account
5. bad debt recovered: corresponding DR will be in debtor's account
6. Debtor A release of specific provision: DR will be in Specific Provisions for Doubtful Debts Account
7. Debtor Z release of specific provision: DR will be in Specific Provisions for Doubtful Debts Account

<i>Bad and Doubtful Debt Expense Account</i>			
<i>bad debt written off</i>	60	<i>bad debt recovered</i>	65
<i>Debtor A – written off</i>	45	<i>Debtor A – release of specific provision</i>	25
<i>Debtor B – creation of specific provision</i>	125	<i>Debtor Z – release of specific provision</i>	30
<i>increase in general provision</i>	20		
	<u>250</u>	<i>c/f</i>	<u>130</u>
			<u>250</u>
<i>b/f</i>	<u>130</u>	<i>transfer to P&amp;L</i>	<u>130</u>

<i>P&amp;L Account</i>	
<i>bad and doubtful debts expense</i>	130

**50.3 An exercise on the valuation of debts**

List the factors or evidence you would consider in deciding whether to create or change a firm's provision for doubtful debts.

**Response**

In addition to the *general* factors listed in response to exercise 49.2, a firm should also consider the evidence and circumstances relating to each individual debtor's ability to pay. Relevant evidence might include:

- lengthening time taken to pay
- a pattern of smaller payments on account, instead of payment in full for each shipment or service
- cheques received from the debtor are or have been dishonoured
- changes in the pattern of ordering goods or services
- downgrading of the debtor's credit rating by a rating agency
- concentration of the debtor's customer base (especially if coupled with doubts about the solvency of any of the debtor's major customers)

### 51.1 A drill to practise accounting for VAT

REQUIRED: record the following transactions and events in the accounts of the business, which is registered for VAT at a standard rate of 20%, and produce a simple P&L Account and balance sheet at the end of the period.

1. business begins when owner puts £10 000 into a business bank account
2. business buys goods on credit for £40 000, plus VAT
3. business sells goods on credit for £60 000 plus VAT
4. first quarterly accounting
- 5 business buys goods on credit for £35 000, plus VAT
6. business sells goods on credit for £25 000, plus VAT
7. second quarterly accounting
8. business buys goods on credit for £45 000, plus VAT
9. business sells goods for £65 000, plus VAT
10. business receives payment of £140 000 by cheque from customers
11. business pays £100 000 by cheque to suppliers
12. end of period. Closing stock is valued at £15 000



<b>Bank</b>				<b>Capital</b>			
(1)	10 000	paid to HMRC	4 000	c/f	55 000	(1)	10 000
rec'd from HMRC	2 000	(11)	100 000		<u>55 000</u>	profit	45 000
(10)	140 000	c/f	48 000				<u>55 000</u>
	<u>152 000</u>		<u>152 000</u>			b/f	55 000
b/f	48 000						
<b>Purchases</b>				<b>Suppliers</b>			
(2)	40 000			(11)	100 000	(2)	48 000
(5)	35 000					(5)	42 000
(8)	45 000	c/f	120 000	c/f	44 000	(8)	54 000
	<u>120 000</u>		<u>120 000</u>		<u>144 000</u>		<u>144 000</u>
b/f	120 000	to P&L	120 000			b/f	44 000
<b>Sales</b>				<b>Customers</b>			
		(3)	60 000	(3)	72 000	(10)	140 000
		(6)	25 000	(6)	30 000		
c/f	150 000	(9)	65 000	(9)	78 000	c/f	40 000
	<u>150 000</u>		<u>150 000</u>		<u>180 000</u>		<u>180 000</u>
to P&L	150 000	b/f	150 000	b/f	40 000		
<b>Stock</b>				<b>P&amp;L Account</b>			
from P&L	15 000			Purchases	120 000	Sales	150 000
				c/f	45 000	c.stock	15 000
					<u>165 000</u>		<u>165 000</u>
				to Capital	45 000	b/f profit	45 000
<b>VAT Settlement</b>				<b>Input VAT</b>			
(4) – input VAT	8 000	(4) – output VAT	12 000	(2)	8 000	(4)	8 000
paid to HMRC	4 000			(5)	7 000	(7)	7 000
	<u>12 000</u>		<u>12 000</u>			to VAT	9 000
(7) – input VAT	7 000	(7) – output VAT	5 000	(8)	9 000	settlement	
	<u>7 000</u>	rec'd from HMRC	2 000				
input VAT	9 000		<u>7 000</u>				
c/f	4 000	output VAT	13 000				
	<u>13 000</u>		<u>13 000</u>				
		b/f	4 000				
				<b>Output VAT</b>			
				(4)	12 000	(3)	12 000
				(7)	5 000	(6)	5 000
				to VAT	13 000	(9)	13 000
				settlement			

**Balance sheet**

	£	£
Assets		
Stock		15 000
Debtors		40 000
Bank		48 000
		<u>103 000</u>
Liabilities		
Trade Creditors	44 000	
VAT	4 000	
		<u>(48 000)</u>
Net Assets		<u>£55 000</u>
Capital		<u>£55 000</u>

**51.2 An exercise on the effects of VAT**

Explain the effect of VAT on the profit of a business, and on its cash flow.

**Response**

Profit: in principle, VAT is borne by consumers, with business firms merely acting as collecting agents for the tax. VAT should not, therefore, affect the profit of a firm, except insofar as any tax on goods or services will tend to reduce demand.

Cash flow: a firm trading at a profit, with the value of its outputs greater than the value of its inputs, will collect output VAT from its customers with a greater value than the input VAT it pays to its suppliers. This would appear to give the firm a cash flow advantage, meaning that the firm holds the extra cash at its disposal until the time of quarterly accounting.

However, the cash flow effect is complicated by the fact that inputs (and input VAT) must usually be paid for before the firm is in a position to collect any cash from the sale of its outputs.

## 52.1 A drill to practise the presentation of the Manufacturing Account

REQUIRED: from the information listed below, compile a Manufacturing Account in standard form, and an Income Statement.

### Response

#### Data

	£
opening stock	
raw materials	20 000
WIP	11 000
finished goods	13 000
purchases	140 000
direct labour	58 000
sales	430 000
factory heat and light	9 000
factory supervision	8 000
machinery (net book value)	80 000
office equipment (net book value)	12 000
general office expenses	15 000
indirect materials	2 000
indirect labour	5 000
selling expenses	13 000
administrative expenses	4 000
insurance	6 000

#### NOTES

Closing stocks are valued at:

raw materials	22 000
WIP	10 000
finished goods	16 000

Insurance is to be divided two thirds for the factory and one third for the office.

Depreciation on machinery and office equipment for the period should be charged at 25% of the net book value.

#### 52.1 Manufacturing Account for the Year Ended (date)

	£
purchases of raw materials	140 000
<i>plus</i> opening stock of raw materials	20 000
<i>minus</i> closing stock of raw materials	(22 000)
cost of raw materials consumed	<u>138 000</u>
direct labour	58 000
<b>PRIME COST</b>	<b>196 000</b>
Production Overheads	
factory heat and light	9 000
factory supervision	8 000
machinery depreciation	20 000
indirect materials	2 000
indirect labour	5 000
factory insurance	4 000
	<u>244 000</u>
<i>plus</i> opening stock of WIP	11 000
<i>minus</i> closing stock of WIP	(10 000)
<b>FACTORY COST of FINISHED GOODS PRODUCED</b>	<b><u>£245 000</u></b>

#### 52.1 Income Statement for the Year Ended (date)

	£
<b>Sales Revenue</b>	<b>430 000</b>
Finished goods produced in period	245 000
<i>plus</i> opening stock of finished goods	13 000
<i>less</i> closing stock of finished goods	<u>(16 000)</u>
<b>Cost of Sales</b>	<b>(242 000)</b>
<b>Gross Profit</b>	<b>188 000</b>
Expenses	
office equipment depreciation	3 000
general expenses	15 000
selling expenses	13 000
administrative expenses	4 000
insurance	<u>2 000</u>
	<u>(37 000)</u>
<b>Operating Profit</b>	<b><u>£151 000</u></b>

**52.2 An exercise on the nature of Work-in-Progress**

WIP is easy to recognize in a manufacturing business. Is there anything resembling WIP in a service-providing business, such as a firm of lawyers or accountants?

**Response**

Stock, and work-in-progress need not take the form of visible or tangible things. In a firm which provides services, it is possible to treat the cost of work done, but not yet billed to a client, as work-in-progress.

### 53.1 A drill to practise comparing cost and net realizable value to determine the value of closing stock

REQUIRED: for each of the following sets of data:

1. determine the net realizable value of the closing stock
2. compare the cost of the stock against its net realizable value, and state the profit or loss expected when the stock is ultimately disposed of
3. state whether the closing stock should be valued at cost or at net realizable value, and explain your decision with reference to the accounting principle of prudence.

STOCK	A £	B £	C £	D £	E £
cost	1 000	20 000	40 000	4 800	12 000
expected sales value	1 500	30 000	50 000	7 000	16 000
expected future costs	300	12 000	10 000	3 000	3 000

#### Response

1. to determine net realizable value:

	A £	B £	C £	D £	E £
expected sales value	1 500	30 000	50 000	7 000	16 000
expected future costs	( 300)	(12 000)	(10 000)	(3 000)	(3 000)
<b>net realizable value</b>	<b>£1 200</b>	<b>£18 000</b>	<b>£40 000</b>	<b>£4 000</b>	<b>£13 000</b>

2. to determine the expected profit or loss and compare cost and NRV:

	A £	B £	C £	D £	E £
net realizable value	1 200	18 000	40 000	4 000	13 000
less cost to date	(1 000)	(20 000)	(40 000)	(4 800)	(12 000)
<b>expected profit (loss)</b>	<b>£ 200</b>	<b>£(2 000)</b>	<b>£ 0</b>	<b>£( 800)</b>	<b>£1 000</b>
<b>which is the lower of Cost and NRV?</b>	<b>cost</b>	<b>NRV</b>	<b>n/a</b>	<b>NRV</b>	<b>cost</b>

3. stock should be valued as shown below:

A	B	C	D	E
<b>cost</b>	<b>NRV</b>	<b>cost</b>	<b>NRV</b>	<b>cost</b>
<b>£1 000</b>	<b>£18 000</b>	<b>£40 000</b>	<b>£4 000</b>	<b>£12 000</b>

If the net realizable value of stock (what can be got out of it) is lower than its cost, then the firm will realize a loss when the stock is sold. If NRV is greater than cost, then the firm will realize a profit when the stock is sold. Valuing stock at the lower of cost and net realizable value ensures that no profit will be recognized in the accounts until the stock is sold, while any loss will be recognized immediately, in accordance with the principle of prudence.

### 53.2 An exercise on accounting for losses of stock

A firm in its first period (with no opening stock) has recorded purchases £550 and sales £750. Closing stock is valued at £50. There are no other costs or expenses, but it is known that halfway through the year, stock valued at £20 was stolen.

Produce a P&L Account for the firm's first period.

#### Response

The value stolen must be taken out of purchases (and therefore out of cost of sales), because it was not sold. It should be included in the P&L Account below gross profit as an expense.

<i>P&amp;L Account for Period 1</i>			
<i>Purchases</i>	550	<i>Sales</i>	750
		<b>stock stolen</b>	<b>20</b>
<i>c/f</i>	<u>270</u>	<i>closing stock</i>	<u>50</u>
	<u>820</u>		<u>820</u>
<b>stock stolen</b>	<b>20</b>	<i>b/f = gross profit</i>	270
<i>c/f</i>	<u>250</u>		
	<u>270</u>		<u>270</u>
		<i>b/f = operating profit</i>	250

### 54.1 A drill to practise LIFO, FIFO and AVCO valuations of stock

From each set of data below, compute the cost of closing stock on a LIFO, FIFO and AVCO basis.

#### A

STOCK MOVEMENT	units in/(out)	unit cost
opening stock	500	£10
purchase 1	1 000	£12
purchase 2	750	£14
sale	(1 500)	
purchase 3	1 800	£15
sale	(1 600)	
sale	( 200)	
closing stock (units)	<u>750</u>	

#### LIFO:

STOCK MOVEMENTS	units in/(out)	opening stock	purchase 1	purchase 2	purchase 3	unit cost
opening stock	500	500				£10
purchase 1	1 000		1 000			£12
purchase 2	750			750		£14
sale	(1 500)		( 750)	( 750)		
purchase 3	1 800				1 800	£15
sale	(1 600)				(1 600)	
sale	( 200)				( 200)	
closing stock (units)	<u>750</u>	<u>500</u>	<u>250</u>	<u>nil</u>	<u>nil</u>	
		@	@	@	@	
		£ 10	£ 12	£14	£15	
		=	=	=	=	
LIFO stock valuation		<u>£5 000</u>	+ <u>£3 000</u>	+ <u>nil</u>	+ <u>nil</u>	= <u>£8 000</u>

#### FIFO:

On the FIFO assumption, the units in closing stock will be valued as coming from the latest purchases. In this case, Purchase 3 – the last purchase – was 1 800 units, so all 750 units in closing stock can be assumed to have come from Purchase 3 at a cost of £15 per unit.

FIFO stock valuation would therefore be  $750 \times £15 = \text{£}11\,250$ .

**A cont'd**

STOCK MOVEMENT	units in/(out)	unit cost
opening stock	500	£10
purchase 1	1 000	£12
purchase 2	750	£14
sale	(1 500)	
purchase 3	1 800	£15
sale	(1 600)	
sale	( 200)	
closing stock (units)	<u>750</u>	

**AVCO:**

STOCK MOVEMENTS	units in/(out)		unit cost	£
opening stock	500	@	£10.00	= 5 000
purchase 1	1 000	@	£12.00	= 12 000
purchase 2	750	@	£14.00	= 10 500
<b>total and average</b>	<b>2 250</b>	<b><u>27 500</u></b>	<b>= £12.22</b>	<b>27 500</b>
		<b>2 250</b>		
sale	(1 500)	@	£12.22	= (18 333)
purchase 3	1 800	@	£15.00	= 27 000
<b>total and average</b>	<b>2 550</b>	<b><u>36 167</u></b>	<b>= £14.18</b>	<b>36 167</b>
		<b>2 550</b>		
sale	(1 600)	@	£14.18	= (22 693)
sale	( 200)	@	£14.18	= (2 837)
<b>closing stock</b>	<b>750</b>	<b>@</b>	<b>£14.18</b>	<b>= £10 637</b>



**B**

STOCK MOVEMENT:	units in/(out)	unit cost
opening stock	850	£10
sale	(200)	
purchase 1	350	£22
sale	(80)	
purchase 2	250	£16
sale	(270)	
purchase	50	£12
closing stock (units)	<u>950</u>	

**LIFO:**

STOCK MOVEMENTS	units in/(out)	opening stock	purchase 1	purchase 2	purchase 3	unit cost
opening stock	850	850				£10
sale	( 200)	( 200)				
purchase 1	350		350			£22
sale	( 80)		( 80)			
purchase 2	250			250		£16
sale	( 270)		( 20)	( 250)		
purchase 3	50				50	£12
closing stock (units)	<u>950</u>	<u>650</u>	<u>250</u>	<u>nil</u>	<u>50</u>	
		@	@	@	@	
		£ 10	£ 22	£16	£ 12	
		=	=	=	=	
LIFO stock valuation		<u>£6 500</u>	+ <u>£5 500</u>	+ <u>nil</u>	+ <u>£ 600</u>	= <u>£12 600</u>

**FIFO:**

Here the units in closing stock are assumed to come from the latest purchases. Going back through the sequence of purchases to reach the number of units in closing stock gives a calculation like this:

	units		unit cost	£
from Purchase 3	50	@	£12	600
from Purchase 2	250	@	£16	4 000
from Purchase 1	350	@	£22	7 700
from opening stock	<u>300</u>	@	£10	<u>3 000</u>
closing stock	<u>950</u>			<u>£15 300</u>

**B cont'd**

STOCK MOVEMENT:	units in/(out)	unit cost
opening stock	850	£10
sale	(200)	
purchase 1	350	£22
sale	(80)	
purchase 2	250	£16
sale	(270)	
purchase	50	£12
closing stock (units)	<u>950</u>	

**AVCO:**

STOCK MOVEMENTS	units in/(out)		unit cost	£
opening stock	850	@	£10.00	= 8 500
sale	( 200)	@	£10.00	= (2 000)
purchase 1	350	@	£22.00	= 7 700
<b>total and average</b>	<b>1 000</b>	<b><u>14 200</u></b> <b>1 000</b>	<b>= £14.20</b>	<b>14 200</b>
sale	( 80)	@	£14.20	= (1 136)
purchase 2	250	@	£16.00	= 4 000
<b>total and average</b>	<b>1 170</b>	<b><u>17 064</u></b> <b>1 170</b>	<b>= £14.58</b>	<b>17 064</b>
sale	( 270)	@	£14.58	= (3 938)
purchase 3	50	@	£12.00	= 600
<b>closing stock</b>	<b>950</b>	<b><u>13 726</u></b> <b>950</b>	<b>= £14.45</b>	<b>£13 726</b>

### 55.1 A drill to practise and compare marginal and absorption costing

A firm produces goods with a sales price of £12 per unit, and a direct cost of £8 per unit. 3 200 units are sold in a year, and actual production overheads are £10 000 for the year. There is no opening stock.

Standard production for the year is 3 200 units and, for this year, the standard overhead and the actual overhead are the same (£10 000 for the year).

- a) using **marginal costing**, prepare a P&L Account for the firm on the assumption that production for the year is 3 500 units
- b) using **marginal costing**, prepare a P&L Account for the firm on the assumption that production for the year is 7 000 units

#### MARGINAL COSTING

a)	units produced	3 500	b)	units produced	7 000
	£	£		£	£
Sales		38 400	Sales		38 400
direct cost of production	28 000		direct cost of production	56 000	
less closing stock	(2 400)		less closing stock	(30 400)	
Cost of Sales		(25 600)	Cost of Sales		(25 600)
Gross Profit		12 800	Gross Profit		12 800
overheads		(10 000)	overheads		(10 000)
<b>operating profit</b>		<b>£2 800</b>	<b>operating profit</b>		<b>£2 800</b>

- c) using **absorption costing**, prepare a P&L Account for the firm on the assumption that production for the year is 3 500 units
- d) using **absorption costing**, prepare a P&L Account for the firm on the assumption that production for the year is 7 000 units

#### ABSORPTION COSTING

c)	units produced	3 500	d)	units produced	7 000
	£	£		£	£
Sales		38 400	Sales		38 400
total cost of production	38 000		total cost of production	66 000	
less closing stock	(3 257)		less closing stock	(35 829)	
Cost of Sales		(34 743)	Cost of Sales		(30 171)
<b>operating profit</b>		<b>£3 657</b>	<b>operating profit</b>		<b>£8 229</b>

- e) using **standard costing**, prepare a P&L Account for the firm on the assumption that production for the year is 3 500 units
- f) using **standard costing**, prepare a P&L Account for the firm on the assumption that production for the year is 7 000 units

**STANDARD COSTING with no under or over absorption of overhead**

e)	units produced	3 500	f)	units produced	7 000
	£	£		£	£
Sales		38 400	Sales		38 400
standard cost of production	38 938		standard cost of production	77 875	
less closing stock	<u>(3 338)</u>		less closing stock	<u>(42 275)</u>	
Cost of Sales		<u>(35 600)</u>	Cost of Sales		<u>(35 600)</u>
<b>Gross Profit</b>		<b><u>£2 800</u></b>	<b>Gross Profit</b>		<b><u>£2 800</u></b>

Note: we have taken the standard cost of each unit produced in the year to consist of the direct cost of £8 per unit, plus a standard OH cost of £3.125 per unit (being the standard OH per year of £10 000, divided by the standard output per year of 3 200 units).

- g) using **standard costing**, prepare a P&L Account for the firm on the assumption that production for the year is 3 500 units, but that the standard overhead cost was £12 000 for the year (this will lead to an over-absorption of overhead)
- h) using **standard costing**, prepare a P&L Account for the firm on the assumption that production for the year is 7 000 units, but again, the standard overhead cost was £12 000 for the year

**STANDARD COSTING with overhead overabsorbed**

g)	units produced	3 500	h)	units produced	7 000
	£	£		£	£
Sales		38 400	Sales		38 400
standard cost of production	41 125		standard cost of production	82 250	
less closing stock	(3 525)		less closing stock	(44 650)	
Cost of Sales		(37 600)	Cost of Sales		(37 600)
Gross Profit		800	Gross Profit		800
OH overabsorbed		3 125	OH overabsorbed		16 250
<b>operating profit</b>		<b>£3 925</b>	<b>operating profit</b>		<b>£17 050</b>

Note:

- We have taken the standard cost of each unit produced in the year to consist of the direct cost of £8 per unit, plus a standard OH cost of £3.75 per unit (being the *new* standard OH per year of £12 000, divided by the standard output per year of 3 200 units).
- The overabsorption of overhead is calculated rather simplistically as the difference between actual OH paid, as shown on the Overhead Account, and the standard OH cost transferred to the P&L Account. For the data in example (g) this will be the balancing figure on the Overhead Account as shown below.

<b>Overhead Account</b> (for data in example g)			
actual money or promises paid	10 000	standard OH cost transferred to P&L	3 500 x $\frac{12\,000}{3\,200}$ 13 125
<b>transferred to P&amp;L</b>	<b>3 125</b>		
<b>overabsorption of overhead</b>			
	<u>13 125</u>		<u>13 125</u>

- very thoughtful readers may have noticed that closing stock in these two final examples will also contain an element of overabsorbed overhead. They may care to calculate the adjustment necessary to exclude the overabsorbed overhead from the valuation of stock.

## 55.2 An exercise on the significance of overheads in costing

The authorities in Gotham are concerned to increase the efficiency of their health service. Each hospital in the city has been required to calculate its total cost per operation performed in the year to date. Money will be saved as more patients are directed to hospitals with the lowest cost per operation.

Comment on the Gotham policy

### Response

The Gotham policy shows the danger of using average costs for decision-making where fixed costs are involved. In such circumstances, average cost per unit will depend on volume of usage as much as it does on efficiency. Consider the data below. Hospital A is clearly more efficient than Hospital B – it has a lower fixed cost per unit of capacity, and a lower direct cost per operation.

HOSPITAL	A	B
capacity(operations per week)	100	200
fixed cost per week	£1 000	£2 400
fixed cost per unit of capacity	$\frac{£1\,000}{100} = £10$	$\frac{£2\,400}{200} = £12$
direct cost per operation	£4	£6

However, if we imagine that Hospital B is used more intensively at, say 75% capacity, as against only 50% capacity in Hospital A, it may well generate a lower actual cost per operation than Hospital A, as shown in the table below:

HOSPITAL	A	B
actual usage (operations per week)	50	150
total cost per week	£1 200	£3 300
average cost per operation	£24	£22

If followed through, the Gotham policy could involve closing efficient hospitals like Hospital A, and transferring their patients to other less efficient hospitals like Hospital B.

### 56.1 A drill on some consequences of insolvency

A firm is insolvent with net liabilities, as shown in the statement below.

		£	£
ASSETS			1 200
LIABILITIES			
Creditors:	A	900	
	B	700	
	C	400	
			<u>(2 000)</u>
NET LIABILITIES			<u>£(800)</u>

Determine how much will be received by each creditor under each of the following assumptions:

**1.**

If all creditors are unsecured and rank equally for payment.

#### Response

The £1 200 of assets will be shared between the creditors in proportion to their claims, and

$$\begin{aligned}
 \text{A will get } & \text{£1 200} \times \frac{900}{2\,000} = \text{£540} \\
 \text{B will get } & \text{£1 200} \times \frac{700}{2\,000} = \text{£420} \\
 \text{C will get } & \text{£1 200} \times \frac{400}{2\,000} = \text{£240} \\
 & \underline{\underline{\text{£1 200}}}
 \end{aligned}$$

**2.**

If the liability to A is secured on an asset which is disposed of for £900 or more, and all other creditors are unsecured and rank equally for payment.

**Response**

A will first recover £900 in full from sale of the asset on which the debt was secured. This will leave the firm with £300 of assets, and liabilities as shown below:

		£	£
ASSETS			300
LIABILITIES			
Creditors:	B	700	
	C	<u>400</u>	
			<u>(1 100)</u>
NET LIABILITIES			<u><u>£(800)</u></u>

The remaining £300 of assets will then be shared between B and C in proportion to their claims. In summary:

<b>A will get</b>		<b>£900</b>
<b>B will get</b>	$£ 300 \times \frac{700}{1 100} =$	<b>£191</b>
<b>C will get</b>	$£ 300 \times \frac{400}{1 100} =$	<b>£109</b>
		<u><u>£1 200</u></u>



**3.**

If the liability to A is secured on an asset which is disposed of for £500, and all other creditors are unsecured and rank equally for payment.

**Response**

A will first recover £500 from sale of the asset on which the debt was secured. This will leave A with a remaining claim of £400. The firm will have £700 of assets, and liabilities as shown below:

		£	£
ASSETS			700
LIABILITIES			
Creditors:	A	400	
	B	700	
	C	400	
		<u>1 500</u>	(1 500)
NET LIABILITIES			<u><u>£(800)</u></u>

The remaining £700 of assets will then be shared between A, B and C in proportion to their outstanding claims. In summary:

<b>A will first get</b>	<b>£500</b>
<i>subsequently</i>	
<b>A will get</b> £ 700 $\times \frac{400}{1\,500}$	<b>£187</b>
<b>total for A</b>	<b>£687</b>
<b>B will get</b> £ 700 $\times \frac{700}{1\,500} =$	<b>£327</b>
<b>C will get</b> £ 700 $\times \frac{400}{1\,500} =$	<b>£187</b>
	<u><u>£1 200</u></u>

**4.**

If the liability to A is secured on an asset which is disposed of for £400, and the liability to B is secured on an asset which is sold for £600, while the liability to C is unsecured.

**Response**

A will first recover £400 from sale of the asset on which his debt was secured. This will leave A with a remaining claim of £500.

B will recover £600 from sale of the asset on which her debt was secured. This will leave B with a remaining claim of £100.

The firm will then have £200 of assets remaining, and liabilities as shown below:

		£	£
ASSETS			200
LIABILITIES			
Creditors:	A	500	
	B	100	
	C	400	
			(1 000)
NET LIABILITIES			<u>£(800)</u>

The remaining £200 of assets will then be shared between A, B and C in proportion to their outstanding claims. In summary:

			total for A	total for B	total for C
<i>First:</i>					
<b>A will get</b>		<b>£400</b>	<b>£400</b>		
<b>B will get</b>		<b>£600</b>		<b>£600</b>	
<i>subsequently</i>					
<b>A will get</b>	$£ 200 \times \frac{500}{1\,000}$	<b>£100</b>	<b>£100</b>		
<b>B will get</b>	$£ 200 \times \frac{100}{1\,000} =$	<b>£20</b>		<b>£20</b>	
<b>C will get</b>	$£ 200 \times \frac{400}{1\,000} =$	<b>£80</b>			<b>£80</b>
		<u><b>£1 200</b></u>	<u><b>£ 500</b></u>	<u><b>£ 620</b></u>	<u><b>£ 80</b></u>

## 56.2 An exercise on risk and ownership

It is sometimes argued that the shareholders of a limited company should have the exclusive right to control the affairs of the company, because they (the shareholders) are the ultimate bearers of risk, if the company's affairs miscarry.

Comment.

### Response

If we grant the premise that the shareholders are the *ultimate* bearers of risk, it does not follow in logic or morality that they should therefore have the *exclusive* right to control the company. Others (lenders, customers, suppliers, and employees, for example) also bear some risk of loss and suffering if the affairs of the company should miscarry, and if there is to be a match between degree of risk and power to control (which is, perhaps, an attractive moral doctrine), then those who bear any part of risk should also enjoy a share of control.

However, in the case of a limited company, the basic premise stated above is false – shareholders are *not* the ultimate bearers of risk in a limited company. It is true that the shareholders' claim on a limited company is last in line for settlement, after the claims of all creditors, but in the case of insolvency, the shareholders' losses are limited to the value they have agreed to invest. Likewise the losses of voluntary creditors (lenders and unpaid suppliers) is limited to the value of the credit they have agreed to give. By contrast the potential losses of any involuntary creditors (members of the public who may have been damaged by the activities of the company) are limited only by the extent of the damage the company may be able to commit.

Arguably, therefore, it is the general public in the form of potential involuntary creditors who are the ultimate bearers of risk in a limited company – though few would argue, therefore, that the general public should be given control of the affairs of every limited company.

**56.3 An exercise on risk and access to credit**

Research ‘micro-credit’ and ‘Grameen bank’ and comment on the utility of these institutions.

*Various students’ answers*

**57.0 There are no drills or exercises on this chapter**

But for the understanding of subsequent chapters, readers should ensure that they have a clear understanding of the nature of a corporation and of limited liability.

## 58.1 A drill to practise accounting for the issue of shares in a new company

For each of the companies below:

- state the double entry necessary to account for the issue of shares
- show the entries in the relevant accounts
- show a summary balance sheet for the company after the share issue.

### 1.

ABC Ltd is formed with authorized share capital £100, divided into 400 ordinary shares of 25p each nominal value.

100 shares are issued for cash at par, fully paid.

DR	Cash	£25	
CR	Issued Share Capital		£25

<i>Cash</i>		<i>Issued Share Capital</i>	
<i>received from issue of shares</i>	25	<i>claim to nominal value of shares issued</i>	25

ABC Ltd Balance Sheet	
Assets	<u>£25</u>
Issued Share Capital	
100 shares of 25p each, fully paid	<u>£25</u>

**2.**

DEF Ltd is formed with authorized share capital £10 000, divided into 20 ordinary shares of nominal value £500 each.

The company issues 5 shares for cash at par, fully paid.

DR	Cash	£2 500	
CR	Issued Share Capital		£2 500

<i>Cash</i>		<i>Issued Share Capital</i>	
<i>received from issue of shares</i>	2 500	<i>claim to nominal value of shares issued</i>	2 500

DEF Ltd Balance Sheet	
Assets	<u>£2 500</u>
Issued Share Capital	
5 shares of £500 each, fully paid	<u>£2 500</u>

**3.**

GHI Ltd is formed with authorized share capital £2 000, divided into 4 000 ordinary shares of nominal value 50p each.

- a) The company issues 100 shares for cash at par, part paid 30p per share.

DR	Cash	£30	
CR	Issued Share Capital		£30

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	30	<i>claim to initial value paid in</i>	30

GHI Ltd Balance Sheet	
Assets	<u>£ 30</u>
Issued Share Capital	
100 shares of 50p each, part paid 30p	<u>£ 30</u>

- b) The issued shares are made fully paid.

DR	Cash	£20	
CR	Issued Share Capital		£20

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	30	<i>claim to initial value paid in</i>	30
<i>received to make shares fully paid</i>	20	<i>claim to further value paid in</i>	20

GHI Ltd Balance Sheet	
Assets	<u>£ 50</u>
Issued Share Capital	
100 shares of 50p each, fully paid	<u>£ 50</u>



## 4.

JKL Ltd is formed with authorized share capital £1 000, divided into 5 000 ordinary shares of nominal value 20p each.

- a) The company issues 1 000 shares for cash at par, part paid 15p per share.

DR	Cash	£150	
CR	Issued Share Capital		£150

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	150		<i>claim to initial value paid in</i> 150

JKL Ltd Balance Sheet	
Assets	<u>£ 150</u>
Issued Share Capital	
1 000 shares of 20p each, part paid 15p	<u>£ 150</u>

- b) The issued shares are made fully paid.

DR	Cash	£50	
CR	Issued Share Capital		£50

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	150		<i>claim to initial value paid in</i> 150
<i>received to make shares fully paid</i>	50		<i>claim to further value paid in</i> 50

JKL Ltd Balance Sheet	
Assets	<u>£ 200</u>
Issued Share Capital	
100 shares of 50p each, fully paid	<u>£ 200</u>

**5.**

MNO Ltd is formed with authorized share capital £100, divided into 200 ordinary shares of nominal value 50p each.

The company issues 100 shares for cash at 60p each (i.e. at a premium of 10p per share) fully paid.

DR	Cash	£60	
CR	Issued Share Capital		£50
CR	Share Premium		£10

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	60		<i>claim to nominal value of shares issued</i> 50
		<b>Share Premium</b>	
			<i>claim to extra value paid in</i> 10

MNO Ltd Balance Sheet	
Assets	<u>£ 60</u>
Issued Share Capital	
100 shares of 50p each, fully paid	50
Share Premium	<u>10</u>
	<u>£ 60</u>

**6.**

PQR Ltd is formed with authorized share capital £500, divided into 500 ordinary shares of nominal value £1 each.

The company issues 300 shares for cash at £1.50 each (i.e. at a premium of 50p per share) fully paid.

DR	Cash	£450	
CR	Issued Share Capital		£300
CR	Share Premium		£150

<b>Cash</b>		<b>Issued Share Capital</b>	
<hr/>		<hr/>	
<i>received</i>			<i>claim to</i>
<i>from issue of</i>			<i>nominal value of</i>
<i>shares</i>	450		<i>shares issued</i>
			300
		<b>Share Premium</b>	
<hr/>		<hr/>	
			<i>claim to</i>
			<i>extra value</i>
			<i>paid in</i>
			150

PQR Ltd Balance Sheet	
Assets	<u>£ 450</u>
Issued Share Capital	
300 shares of £1 each, fully paid	300
Share Premium	<u>150</u>
	<u>£ 450</u>

**7.**

STU Ltd is formed with authorized share capital £1 000, divided into 1 000 ordinary shares of nominal value £1 each.

a) The company issues 100 shares for cash at £1.20 each, part paid 90p.

DR	Cash	£90	
CR	Issued Share Capital		£70
CR	Share Premium		£20

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	90		<i>claim to part of nominal value of shares issued</i> 70
		<b>Share Premium</b>	
			<i>claim to extra value paid in</i> 20

STU Ltd Balance Sheet after part-paid issue	
Assets	<u>£ 90</u>
Issued Share Capital	
100 shares of £1 each, part paid	70
Share Premium	<u>20</u>
	<u>£ 90</u>

**7. continued**

STU Ltd was formed with authorized share capital £1 000, divided into 1 000 ordinary shares of nominal value £1 each.

a) The company has issued 100 shares for cash at £1.20 each, part paid 90p.

b) The issued shares are made fully paid.

DR	Cash	£30	
CR	Issued Share Capital		£30

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	90		<i>claim to part of nominal value of shares issued</i> 70
<i>received to make shares fully paid</i>	30		<i>claim to the rest of nominal value of shares issued</i> 30
		<b>Share Premium</b>	
			<i>claim to extra value paid in</i> 20

STU Ltd Balance Sheet after shares are fully paid	
Assets	<u>£ 120</u>
Issued Share Capital	
100 shares of £1 each, fully paid	100
Share Premium	<u>20</u>
	<u>£ 120</u>

**8.**

VWX Ltd is formed with authorized share capital £5 000, divided into 500 ordinary shares of nominal value £10 each.

- a) The company issues 400 shares for cash at £12 each, part paid £11.

DR	Cash	£4 400	
CR	Issued Share Capital		£3 600
CR	Share Premium		£800

<b>Cash</b>		<b>Issued Share Capital</b>	
			<i>claim to part of nominal value of shares issued</i>
<i>received from issue of shares</i>	4 400		3 600
		<b>Share Premium</b>	
			<i>claim to extra value paid in</i>
			800

VWX Ltd Balance Sheet after part-paid issue	
Assets	<u>£4 400</u>
Issued Share Capital	
400 shares of £10 each, part paid	3 600
Share Premium	<u>800</u>
	<u>£4 400</u>

**8. continued**

VWX Ltd was formed with authorized share capital £5 000, divided into 500 ordinary shares of nominal value £10 each.

a) The company has issued 400 shares for cash at £12 each, part paid £11.

b) The issued shares are made fully paid.

DR	Cash	£400	
CR	Issued Share Capital		£400

<b>Cash</b>		<b>Issued Share Capital</b>	
<i>received from issue of shares</i>	4 400		<i>claim to part of nominal value of shares issued</i> 3 600
<i>received to make shares fully paid</i>	400		<i>claim to the rest of nominal value of shares issued</i> 400
		<b>Share Premium</b>	
			<i>claim to extra value paid in</i> 800

VWX Ltd Balance Sheet after shares are fully paid	
Assets	<u>£4 800</u>
Issued Share Capital	
400 shares of £10 each, fully paid	4 000
Share Premium	<u>800</u>
	<u>£4 800</u>

**9.**

Robert has invented and patented a new engineering process.

Various investors are interested, and Robert has formed RHA Ltd to exploit the idea, with an authorized share capital of £50 000, divided into 200 000 shares of 25p each.

The company initially issues a total of 160 000 shares at a premium of 75p per share, fully paid. 90 000 shares are allotted to Robert, in exchange for the exclusive right to use his patent, and 70 000 shares are allotted to Audrey for cash.

DR	Patent Rights	£90 000	
DR	Cash	£70 000	
CR	Issued Share Capital		£40 000
CR	Share Premium		£120 000

<i>Patent Rights</i>	
<i>received from Robert</i>	90 000

<i>Cash</i>	
<i>received from Audrey</i>	70 000

<i>Issued Share Capital</i>	
<i>claim to nominal value of shares issued</i>	40 000

<i>Share Premium</i>	
<i>claim to extra value paid in</i>	120 000

RHA Ltd Balance Sheet	
	£
Assets	
Patent Rights	90 000
Cash	70 000
	<u>£160 000</u>
Issued Share Capital	
160 000 shares of 25p, fully paid	40 000
Share Premium	120 000
	<u>£160 000</u>



**10.**

X, Y, and Z have formed XYZ Ltd with an authorized share capital of £500 000, divided into 100 000 shares of £5 each.

The company issues 20 000 shares at par, fully paid, as follows:

8 000 shares are issued to X in exchange for delivery vehicles

7 000 shares are issued to Y in exchange for machinery

5 000 are allotted to Z for cash.

DR	Delivery Vehicles	£40 000	
DR	Machinery	£35 000	
DR	Cash	£25 000	
CR	Issued Share Capital		£100 000

<i>Delivery vehicles</i>	
<i>received from X</i>	40 000

<i>Machinery</i>	
<i>received from Y</i>	35 000

<i>Cash</i>	
<i>received from Z</i>	25 000

<i>Issued Share Capital</i>	
	<i>claim to nominal value of 100 000 shares issued</i>

XYZ Ltd Balance Sheet	
	£
Assets	
Delivery Vehicles	40 000
Machinery	35 000
Cash	25 000
	<u>£100 000</u>
Issued Share Capital	
20 000 shares of £5, fully paid	<u>£100 000</u>

### 59.1 A drill to practise accounting for profits and losses in a limited company

ABC Ltd has issued 100 shares of £1 each for £1.50. The company therefore shows net assets £150, issued share £100, and share premium £50.

Show the company's balance sheet at the end of each successive year, if it reports profits and losses as follows:

Year 1 £25 profit

Year 2 £20 loss

Year 3 £60 profit

Year 4 £80 loss

Year 5 £10 profit

Year 6 £100 loss

Year 7 £50 loss

<i>BALANCE SHEETS at end of ...</i>		YR 1 after profit £25	YR 2 after loss £(20)	YR 3 after profit £60	YR 4 after loss £(80)	YR 5 after profit £10	YR 6 after loss £(100)	YR 7 after loss £(50)
	£	£	£	£	£	£	£	£
<b>Net Assets</b>	<u>£150</u>	<u>£175</u>	<u>£155</u>	<u>£215</u>	<u>£135</u>	<u>£145</u>	<u>£45</u>	<u>£(5)</u>
Issued Share Capital								
400 shares of 25p	100	100	100	100	100	100	100	100
Share Premium	50	50	50	50	50	50	50	50
<b>Retained Earnings (Loss)</b>	<u>£150</u>	<u>£175</u>	<u>£155</u>	<u>£215</u>	<u>£135</u>	<u>£145</u>	<u>£45</u>	<u>£(5)</u>

## 59.2 A drill to practise reading the limited company balance sheet

For each of the following companies, state the total value of the shareholders' claim on the company, and explain the origin of its different components

### DEF Ltd

DEF Ltd Balance Sheet	
Net Assets	<u>£200</u>
Issued Share Capital 800 shares of 25p	<u>£200</u>

DEF Ltd: the total shareholders' claim on the company is £200. All of this claim arises in respect of value paid in to the company by shareholders in exchange for the shares issued to them. Shareholders have paid in no more than the minimum required by the company.

### GHI Ltd

GHI Ltd Balance Sheet	
	£
Net Assets	<u>£120</u>
Issued Share Capital	
100 shares of £1	100
Share Premium	<u>20</u>
	<u>£120</u>

GHI Ltd: the total shareholders' claim on the company is £120. All of this arises in respect of value paid in to the company by shareholders in exchange for the shares issued to them, but the total is divided into:

- issued share capital – a claim to £100 of value in respect of the minimum payment required by the company in exchange for the issue of 100 shares, and
- share premium – a claim to £20 extra value paid in by shareholders.

**JKL Ltd**

JKL Ltd Balance Sheet	
	£
Net Assets	<u>£190</u>
Issued Share Capital	
500 shares of 20p	100
Share Premium	50
Retained Earnings	<u>40</u>
	<u>£190</u>

JKL Ltd: the total shareholders' claim on the company is £190. This total is divided into:

- issued share capital – a claim to the minimum £100 of value that shareholders had to pay into the company to acquire the number of shares that have been issued
- share premium – a claim to an extra £50 of value also paid in by shareholders
- retained earnings – a claim to extra net assets (or profit) accumulated by the company, with a value of £40

**MNO Ltd**

MNO Ltd Balance Sheet	
	£
Net Assets	<u>£550</u>
Issued Share Capital	
1 000 shares of 50p	500
Share Premium	250
Retained Loss	<u>( 200)</u>
	<u>£550</u>

MNO Ltd: the total shareholders' claim on the company is £550. This total can be divided into three parts:

- issued share capital – a claim to the minimum £500 of value shareholders had to pay into the company to acquire the number of shares that have been issued
- share premium – a claim to an extra £250 of value also paid in by shareholders *minus*
- retained loss of £200 – this is the accumulated value of net assets lost by the company.

**PQR Ltd**

PQR Ltd	
	£
Net Assets	<u>£2 000</u>
Issued Share Capital	
1 000 shares of £5	5 000
Share Premium	3 000
Retained Loss	<u>(6 000)</u>
	<u>£2 000</u>

PQR Ltd: the total shareholders' claim on the company is £2 000. This total can be divided into three parts:

- issued share capital – a claim to the minimum £5 000 of value shareholders had to pay into the company to acquire the number of shares that have been issued
- share premium – a claim to an extra £3 000 of value also paid in by shareholders

*minus*

- retained loss of £6 000 – the accumulated value of net assets lost by the company.

**STU Ltd**

STU Ltd	
	£
Net Assets	<u>£(1 000)</u>
Issued Share Capital	
1 000 shares of £5	5 000
Share Premium	3 000
Retained Loss	<u>(9 000)</u>
	<u>£(1 000)</u>

STU Ltd: the total shareholders' claim on the company is *minus* £1 000. This means that the company is insolvent, and to make it solvent would require a payment in of £1 000 by shareholders. The total negative claim consists of:

- share capital – claim to the £5 000 of value that shareholders had to pay in for the number of shares issued to them
- share premium - claim to an extra £3 000 also paid in by shareholders

*minus*

- retained loss – accumulated value of net assets lost by company £9 000

## 60.1 A drill to practise accounting for profits, losses and dividends in a limited company

Show a summarized balance sheet at the end of each year, for each of the following companies

### 1.

ABC Ltd is incorporated with authorized share capital £1 000 divided into 1 000 shares of £1 each. All of the shares are issued fully paid, at par.

YEAR 1: net profit £230, dividend £170

YEAR 2: net profit £180, dividend 10p per share

YEAR 3: net loss £50, dividend 3p per share

YEAR 4: net profit £90, dividend 8%

<i>ABC BALANCE SHEETS at end of ...</i>	<i>YR 1</i>	<i>YR 2</i>	<i>YR 3</i>	<i>YR 4</i>
£	£	£	£	£
<b>Net Assets</b>	<b><u>£1 000</u></b>	<b><u>£1 060</u></b>	<b><u>£1 140</u></b>	<b><u>£1 060</u></b>
Issued Share Capital				
1000 shares of £1	1 000	1 000	1 000	1 000
<b>Retained Earnings (Loss)</b>	<b><u>60</u></b>	<b><u>140</u></b>	<b><u>60</u></b>	<b><u>70</u></b>
	<u>£1 000</u>	<u>£1 060</u>	<u>£1 140</u>	<u>£1 070</u>

<b>Workings:</b>	<i>YR 1</i>	<i>YR 2</i>	<i>YR 3</i>	<i>YR 4</i>
<b>for Net Assets</b>				
<i>b/f</i>	1 000	1 060	1 140	1 060
<i>add profit/less (loss)</i>	230	180	( 50)	90
<i>less dividend</i>	( 170)	( 100)	( 30)	( 80)
<b>c/f</b>	<b><u>£1 060</u></b>	<b><u>£1 140</u></b>	<b><u>£1 060</u></b>	<b><u>£1 070</u></b>
<b>for Retained Earnings (Loss)</b>				
<i>b/f</i>	nil	60	140	60
<i>add profit/less (loss)</i>	230	180	( 50)	90
<i>less dividend</i>	(170)	( 100)	( 30)	( 80)
<b>c/f</b>	<b><u>£ 60</u></b>	<b><u>£ 140</u></b>	<b><u>£ 60</u></b>	<b><u>£ 70</u></b>

**2.**

DEF Ltd is incorporated with authorized share capital £500 divided into 1 000 shares of 50p each. All of the shares are issued for 75p each, fully paid.

YEAR 1: net profit £105, dividend £100

YEAR 2: net profit £80, dividend 4.5p per share

YEAR 3: net loss £5, dividend 3p per share

YEAR 4: net profit £60, dividend 5%

<i>DEF BALANCE SHEETS at end of ...</i>	<i>YR 1</i>	<i>YR 2</i>	<i>YR 3</i>	<i>YR 4</i>
	£	£	£	£
<b>Net Assets</b>	<b><u>£ 750</u></b>	<b><u>£ 755</u></b>	<b><u>£ 790</u></b>	<b><u>£ 755</u></b>
Issued Share Capital				
1000 shares of 50p	500	500	500	500
Share Premium	250	250	250	250
<b>Retained Earnings (Loss)</b>	<b><u>5</u></b>	<b><u>40</u></b>	<b><u>5</u></b>	<b><u>40</u></b>
	<u>£ 750</u>	<u>£ 755</u>	<u>£ 790</u>	<u>£ 755</u>

<b>Workings:</b>	<i>YR 1</i>	<i>YR 2</i>	<i>YR 3</i>	<i>YR 4</i>
<b>for Net Assets</b>				
<i>b/f</i>	750	755	790	755
<i>add profit/less (loss)</i>	105	80	( 5)	60
<i>less dividend</i>	( 100)	( 45)	( 30)	( 25)
<b><i>c/f</i></b>	<b><u>£ 755</u></b>	<b><u>£ 790</u></b>	<b><u>£ 755</u></b>	<b><u>£ 790</u></b>
 <b>for Retained Earnings (Loss)</b>				
<i>b/f</i>	nil	5	40	5
<i>add profit/less (loss)</i>	105	80	( 5)	60
<i>less dividend</i>	(100)	( 45)	( 30)	( 25)
<b><i>c/f</i></b>	<b><u>£ 5</u></b>	<b><u>£ 40</u></b>	<b><u>£ 5</u></b>	<b><u>£ 40</u></b>

**3.**

GHI Ltd is incorporated with authorized share capital £2 000 divided into 2 000 shares of £1 each. 1 500 of the shares are issued at a premium of 10p each, fully paid.

YEAR 1: net loss £50

YEAR 2: net profit £350, dividend £150

YEAR 3: net profit £200, dividend 9p per share

YEAR 4: net loss £45, dividend nil

<i>GHI BALANCE SHEETS at end of ...</i>	YR 1	YR 2	YR 3	YR 4
£	£	£	£	£
<b>Net Assets</b>	<b>£1 650</b>	<b>£1 600</b>	<b>£1 800</b>	<b>£1 865</b>
Issued Share Capital				
1500 shares of £1	1 500	1 500	1 500	1 500
Share Premium	150	150	150	150
<b>Retained Earnings (Loss)</b>	<b>( 50)</b>	<b>150</b>	<b>215</b>	<b>170</b>
	<u>£1 650</u>	<u>£1 600</u>	<u>£1 800</u>	<u>£1 865</u>

<b>Workings:</b>	YR 1	YR 2	YR 3	YR 4
<b>for Net Assets</b>				
<i>b/f</i>	1 650	1 600	1 800	1 865
<i>add profit/less (loss)</i>	( 50)	350	200	( 45)
<i>less dividend</i>	nil	( 150)	( 135)	nil
<b>c/f</b>	<b>£1 600</b>	<b>£1 800</b>	<b>£1 865</b>	<b>£1 820</b>
<b>for Retained Earnings (Loss)</b>				
<i>b/f</i>	nil	(50)	150	215
<i>add profit/less (loss)</i>	(50)	350	200	( 45)
<i>less dividend</i>	nil	( 150)	( 135)	nil
<b>c/f</b>	<b>£( 50)</b>	<b>£ 150</b>	<b>£ 215</b>	<b>£ 170</b>



**4.**

JKL Ltd is incorporated with authorized share capital £500 divided into 5 000 shares of 10p each. 3 000 of the shares are issued at par, part paid 7p per share.

YEAR 1: net profit £95, dividend £45

YEAR 2: net loss £20, dividend 10%

YEAR 3: during this year, the company required the shares to be paid up in full, and reported net profit £140, dividend 2p per share

YEAR 4: net profit £50, dividend 10%

<i>JKL BALANCE SHEETS at end of ...</i>			YR 1	YR 2		YR 3	YR 4
	£		£	£		£	£
<b>Net Assets</b>	<b>£ 210</b>		<b>£ 260</b>	<b>£ 210</b>	<b>Net Assets</b>	<b>£ 380</b>	<b>£ 400</b>
Issued Share Capital 3000 shares of 10p, part paid 7p	210		210	210	Issued Share Capital 3000 shares of 10p fully paid	300	300
<b>Retained Earnings (Loss)</b>			<b>50</b>	<b>0</b>	<b>Retained Earnings (Loss)</b>	<b>80</b>	<b>100</b>
	<u>£ 210</u>		<u>£ 260</u>	<u>£ 210</u>		<u>£ 380</u>	<u>£ 400</u>
<b>Workings:</b>			<b>YR 1</b>	<b>YR 2</b>	<b>Workings:</b>	<b>YR 3</b>	<b>YR 4</b>
<b>for Net Assets</b>					<b>for Net Assets</b>		
b/f			210	260	b/f	210	380
add profit/less (loss)			95	( 20)	add cash from call on shares	90	
less dividend			( 45)	( 30)	add profit/less (loss)	140	50
c/f			<u>£ 260</u>	<u>£ 210</u>	less dividend	( 60)	( 30)
					c/f	<u>£ 380</u>	<u>£ 400</u>
<b>for Retained Earnings (Loss)</b>					<b>for Retained Earnings (Loss)</b>		
b/f			nil	50	b/f	0	80
add profit/less (loss)			95	( 20)	add profit/less (loss)	140	50
less dividend			(45)	( 30)	less dividend	( 60)	( 30)
c/f			<u>£ 50</u>	<u>£ 0</u>	c/f	<u>£ 80</u>	<u>£ 100</u>

## 61.1 An exercise on capital maintenance

Go to **www.wikipedia.com** and research 'Ponzi scheme'.

### Suggested Elements of a Response

A Ponzi scheme is fraudulent enterprise in which existing investors are rewarded with 'profits' which are in fact paid out of funds from new investors. As long as the fraud continues to expand and attract new investors, few suspicions will be aroused, especially because existing investors will often reinvest their apparent profits, and even invest more of their own funds.

Ponzi schemes are named after Charles Ponzi (1882–1949), author of a famous such scheme in the United States, although similar schemes have a long history. The public limited company, with its shares on sale to the public at large, is a perfect vehicle for this kind of fraud, and laws with respect to capital maintenance in a limited company are in part designed to reduce the incidence and contain the effects of Ponzi-like schemes.

## 61.2 An exercise on dividend policy

According to the dividend irrelevance theory, investors should be indifferent as to whether or not a company pays a dividend. How would the system work if NO companies ever paid a dividend?

### Suggested Elements of a Response

The dividend irrelevance theory is the idea that investors are unconcerned whether a company pays a dividend, or whether it keeps the relevant funds and reinvests them. If the company keeps the relevant funds and reinvests them, shareholders will benefit from an increase in the value of their shares. Those shareholders who need such extra value in the form of money, and who might therefore require a dividend, will be able to get it by selling a portion of their shares. Thus if my shares double in value over a year but the company does not pay a dividend, I may sell half of my shares and spend the money, and still hold an investment at the end of the year which is equal in value to my investment at the beginning of the year.

If no companies ever paid a dividend, the only way in which existing investors could realize any extra value in the form of money would be by selling a portion of their investments to new investors. The stock market as a whole would therefore come to bear a close resemblance to a Ponzi scheme. The difference is that companies in the stock market are supposed to engage in some real profit-making enterprise, and to prove it with audited financial reports.

## 62.1 An exercise on market capitalization and goodwill

Review the comparisons of market capitalization and net asset values in Box 62.2 and consider possible causes for the large differences in the importance of goodwill in the share prices of the different companies.

### BOX 62.2

#### Market Capitalization and Goodwill: Four Sample Companies

company activity	office rental £M	public transport £M	department store £M	professional training £M
<b>Market Capitalisation</b>	<b>1 295.2</b>	<b>1 436.0</b>	<b>11 771.8</b>	<b>321.3</b>
<b>Net Asset Value</b>	<b>( 654.7)</b>	<b>( 542.5)</b>	<b>(1 646.8)</b>	<b>( 10.6)</b>
<b>Goodwill</b>	<b>640.5</b>	<b>893.5</b>	<b>10 125.0</b>	<b>310.7</b>
<b>Goodwill as % of share value</b>	<b>49.5%</b>	<b>62.2%</b>	<b>86.0%</b>	<b>96.7%</b>

### Response

The members or shareholders of a company have a claim on the net assets of the company, as shown in the company balance sheet. They also have the right to claim all future profits of the company. This right, known as goodwill, has a value and is included, along with the claim to net assets, in the company's market capitalization (the combined value of all shares in the company).

The proportion of goodwill to net asset value in a company's market capitalization will depend on how buyers and sellers in the stock market view the company's capacity to grow future profits, and its dependence on the use of assets. In our examples the extremes are the professional training company, which can generate profits from a very small asset base, and the office rental company, which depends mainly on the exploitation of its property assets, rather than the exploitation of its employees. The first therefore has a very high and the second a much lower proportion of goodwill in its market capitalization.

It is more difficult to comment on the two intermediate firms, although for all companies the goodwill element in their market capitalization is surprisingly high – more reflective perhaps of stock market conditions at the time of writing, than of any truly rational consideration of their future prospects.

### 63.1 A drill to practise accounting for rights issues

For each of the companies below:

- show the standard working for the rights issue
- state the double entry to account for the rights issue
- show the balance sheet of the company after the rights issue

#### 1.

ABC Ltd begins with this balance sheet:

ABC Balance Sheet before rights issue	
Net Assets	<u>£550</u>
Issued Share Capital	
700 shares of 50p	350
Retained Earnings (Loss)	<u>200</u>
	<u>£550</u>

The company makes a 3 for 7 rights issue at 80p.

#### Standard Working for Rights Issue

number of new shares	700	x	$\frac{3}{7}$	=	300
<hr/>					
cash raised	300	x	80p	=	£240
Nominal Value of new shares	300	x	50p	=	(150)
<b>Share Premium</b>					<u><b>£90</b></u>

#### Double Entry

DR	Cash	£240	
CR	Issued Share Capital		£150
CR	Share Premium		£90

#### Balance Sheet after Rights Issue

ABC Balance Sheet after rights issue	
Net Assets	<u>£790</u>
Issued Share Capital	
1000 shares of 50p	500
Share Premium	90
Retained Earnings (Loss)	<u>200</u>
	<u>£790</u>

**2.**

DEF Ltd begins with this balance sheet:

<b>DEF Balance Sheet</b> before rights issue	
Net Assets	<u>£300</u>
Issued Share Capital	
1000 shares of 10p	100
Share Premium	50
Retained Earnings (Loss)	<u>150</u>
	<u>£300</u>

The company makes a 2 for 5 rights issue at 16p.

**Standard Working for Rights Issue**

number of new shares	1 000	x	$\frac{2}{5}$	=	400
<hr/>					
					£
cash raised	400	x	16p	=	64
Nominal Value of new shares	400	x	10p	=	(40)
<b>Share Premium</b>					<u><b>£24</b></u>

**Double Entry**

DR	Cash	£64	
CR	Issued Share Capital		£40
CR	Share Premium		£24

**Balance Sheet after Rights Issue**

<b>DEF Balance Sheet</b> after rights issue	
Net Assets	<u>£364</u>
Issued Share Capital	
1400 shares of 10p	140
Share Premium	74
Retained Earnings (Loss)	<u>150</u>
	<u>£364</u>

**3.**

GHI Ltd begins with this balance sheet:

<b>GHI Balance Sheet</b> before rights issue	
Net Assets	<u>£2 000</u>
Issued Share Capital	
4000 shares of 25p	1 000
Share Premium	250
Retained Earnings (Loss)	<u>750</u>
	<u>£2 000</u>

The company makes a 3 for 8 rights issue at 60p.

**Standard Working for Rights Issue**

number of new shares	4 000	x	$\frac{3}{8}$	=	1 500
<hr/>					
					£
cash raised	1 500	x	60p	=	900
Nominal Value of new shares	1 500	x	25p	=	(375)
<b>Share Premium</b>					<u><b>£525</b></u>

**Double Entry**

DR	Cash	£900	
CR	Issued Share Capital		£375
CR	Share Premium		£525

**Balance Sheet after Rights Issue**

<b>GHI Balance Sheet</b> after rights issue	
Net Assets	<u>£2 900</u>
Issued Share Capital	
5500 shares of 25p	1 375
Share Premium	775
Retained Earnings (Loss)	<u>750</u>
	<u>£2 900</u>

**4.**

JKL Ltd begins with this balance sheet:

<b>JKL Balance Sheet</b> before rights issue	
Net Assets	<u>£10 000</u>
Issued Share Capital	
2100 shares of £1	2 100
Share Premium	3 780
Retained Earnings (Loss)	<u>4 120</u>
	<u>£10 000</u>

The company makes a 1 for 3 rights issue at £1.90p.

**Standard Working for Rights Issue**

number of new shares	2 100	x	$\frac{1}{3}$	=	700
<hr/>					
					£
cash raised	700	x	£1.90	=	1 330
Nominal Value of new shares	700	x	£1.00	=	(700)
<b>Share Premium</b>					<u><b>£630</b></u>

**Double Entry**

DR	Cash	£1 330	
CR	Issued Share Capital		£700
CR	Share Premium		£630

**Balance Sheet after Rights Issue**

<b>JKL Balance Sheet</b> after rights issue	
Net Assets	<u>£11 330</u>
Issued Share Capital	
2800 shares of £1	2 800
Share Premium	4 410
Retained Earnings (Loss)	<u>4 120</u>
	<u>£11 330</u>



### 63.2 A drill to practise the theoretical ex-rights value of a share

For each of the situations below, show the standard working for the theoretical ex-rights price of a share.

**1.**

Market value of a share in ABB Ltd before rights issue: 62p.

Rights issue: 2 for 5 at 50p.

#### Standard Working

	number of shares		price per share		value £
initial holding	5	x	£0.62	=	3.10
rights issue	2	x	£0.50	=	1.00
after rights issue	<u>7</u>	x	<b>£0.59</b>	=	<b><u>£4.10</u></b>
		<i>arithmetic:</i>	£0.59	=	$\frac{£4.10}{7}$

**2.**

Market value of a share in BCC Ltd before rights issue: £1.10.

Rights issue: 3 for 7 at 60p.

#### Standard Working

	number of shares		price per share		value £
initial holding	7	x	£1.10	=	7.70
rights issue	3	x	£0.60	=	1.80
after rights issue	<u>10</u>	x	<b>£0.95</b>	=	<b><u>£9.50</u></b>
		<i>arithmetic:</i>	£0.95	=	$\frac{£9.50}{10}$

**3.**

Market value of a share in CDD Ltd before rights issue: 81p.

Rights issue: 3 for 8 at 59p.

**Standard Working**

	number of shares		price per share	=	value £
initial holding	8	x	£0.81	=	6.48
rights issue	3	x	£0.59	=	1.77
after rights issue	<u>11</u>	x	<b>£0.75</b>	=	<b><u>£8.25</u></b>
<i>arithmetic:</i>			£0.75	=	$\frac{£8.25}{11}$

**4.**

Market value of a share in DFF Ltd before rights issue: 55p.

Rights issue: 1 for 3 at 35p.

**Standard Working**

	number of shares		price per share	=	value £
initial holding	3	x	£0.55	=	1.65
rights issue	1	x	£0.35	=	0.35
after rights issue	<u>4</u>	x	<b>£0.50</b>	=	<b><u>£2.00</u></b>
<i>arithmetic:</i>			£0.50	=	$\frac{£2.00}{4}$

### 64.1 A drill to practise accounting for the issue of a debenture

ABC plc has the following balance sheet:

ABC plc Balance Sheet	
	£
Assets	570 000
Liabilities	(95 000)
Net Assets	<u>£475 000</u>
Issued Share Capital	
300 000 ordinary shares of 50p	150 000
Share Premium	75 000
Retained Earnings	<u>250 000</u>
	<u>£475 000</u>

The company issues a 5% debenture for £100 000, repayable in 2040.

Show the company's balance sheet after the issue of the debenture.

#### Response

ABC plc Balance Sheet after debenture issue	
	£
<b>Assets</b>	<b>670 000</b>
Liabilities	(95 000)
<b>5% debenture 2040</b>	<b><u>(100 000)</u></b>
Net Assets	<u>£475 000</u>
Issued Share Capital	
300 000 ordinary shares of 50p	150 000
Share Premium	75 000
Retained Earnings	<u>250 000</u>
	<u>£475 000</u>

## 64.2 A drill to practise the effect of interest rate changes on the market value of a debenture

DEF plc has issued a 6% irredeemable debenture for £250 000.

X lends the company £1 000 and becomes the holder of £1 000 debenture stock.

What will be the approximate market value of X's holding:

- a) if interest rates rise so that companies like DEF plc are having to pay 9% per year on their borrowings?
- b) if interest rates fall, so that companies like DEF plc are able to borrow at 3% interest per year?

### Response

- a) Lending at interest can be seen as buying an income. By lending the company £1 000 at 6% per year, X has in effect spent £1 000 to buy an income of £60 per year.

If interest rates go up, the same income can be acquired with less capital, and so the market value of an income already in possession will fall.

In this particular case, if interest rates rise so that companies like DEF plc are having to pay 9% per year on their borrowings, we can determine the value of X's debenture by asking what value  $£C_1$  at 9% would generate an income of £60 per year.

If  $£C_1 \times 9\% = £60$ , then  $£C_1 = £666.67$  and X's income of £60 per year will be worth approximately £667.

- b) If interest rates fall, so that companies like DEF plc are able to borrow at 3% interest per year, then it would require a greater investment to acquire the same income and we must ask what value  $£C_2$  at 3% would generate an income of £60 per year.

If  $£C_2 \times 3\% = £60$ , then  $£C_2 = £2\ 000$  and X's income of £60 per year will be worth approximately £2 000.

### 64.3 A drill to practise accounting for the issue of preference shares

GHI plc has the following balance sheet:

GHI plc Balance Sheet	
	£
Assets	685 000
Liabilities	(140 000)
Net Assets	<u>£545 000</u>
Issued Share Capital	
800 000 ordinary shares of 25p	200 000
Share Premium	45 000
Retained Earnings	<u>300 000</u>
	<u>£545 000</u>

The company issues 100 000 8% preference shares of £1 each nominal value for cash at £1.05 per share.

a) show the company's balance sheet after the issue of the preference shares

GHI plc Balance Sheet after preference share issue	
	£
<b>Assets</b>	<b>790 000</b>
Liabilities	(140 000)
Net Assets	<u>£650 000</u>
Issued Share Capital	
800 000 ordinary shares of 25p	200 000
<b>8% Preference shares of £1 each</b>	<b>100 000</b>
Share Premium	50 000
Retained Earnings	<u>300 000</u>
	<u>£650 000</u>

b) state what the company's earnings will be, if the profit for the year after the issue of the preference shares is £18 000

	£
<b>profit</b>	<b>18 000</b>
<b>less preference dividend</b>	<b>(8 000)</b>
8% x £100 000	
<b>earnings</b>	<u><u>£10 000</u></u>

If **profit** for the year after the issue of the preference shares is £18 000, **earnings** will be £10 000.

### 64.4 A drill to practise understanding the limited company balance sheet

Three companies have balance sheets as shown below. The directors now decide to wind up each company. Assuming that the balance sheets show fair values for assets and liabilities, state for each company how much will be received by preference shareholders and how much by ordinary shareholders.

#### A.

A : Balance Sheet	
	£
Assets	680 000
Liabilities	<u>(230 000)</u>
Net Assets	<u><u>£450 000</u></u>
Issued Share Capital	
ordinary shares of 10p	250 000
7% preference shares	100 000
Share Premium	40 000
Retained Earnings	<u>60 000</u>
	<u><u>£450 000</u></u>

If this company is wound up, after payment of the creditors:

- preference shareholders will get £100 000, and
- ordinary shareholders will get £350 000

**B.****B : Balance Sheet**

	£
Assets	310 000
Liabilities	<u>(120 000)</u>
Net Assets	<u>£190 000</u>

Issued Share Capital	
ordinary shares of 25p	200 000
8% preference shares	100 000
Share Premium	50 000
Retained Loss	<u>(160 000)</u>
	<u>£190 000</u>

If this company is wound up, after payment of the creditors:

- preference shareholders will get £100 000, but
- ordinary shareholders will get only £90 000

**C.****C: Balance Sheet**

	£
Assets	135 000
Liabilities	<u>(45 000)</u>
Net Assets	<u>£90 000</u>

Issued Share Capital	
ordinary shares of 25p	150 000
6% preference shares	100 000
Share Premium	30 000
Retained Loss	<u>(190 000)</u>
	<u>£90 000</u>

If this company is wound up, after payment of the creditors:

- preference shareholders will get only £90 000, while
- ordinary shareholders will get nothing

### 65.1 An exercise on the different claims on the assets of a company

Carefully describe the different claims on the assets of the company whose balance sheet is shown below, stating as far as possible the origin of each claim, how or when it may be reduced, and why some claims may not normally be reduced at all.

Company Balance Sheet	
	£
Assets	1 680 000
(1) Liabilities	<u>(650 000)</u>
Net Assets	<u>£1 030 000</u>
Issued Share Capital	
(2) ordinary shares of 25p	250 000
(3) 6% preference shares	100 000
(4) Share Premium	120 000
(5) Revaluation Reserve	60 000
(6) Capital Redemption Reserve	50 000
(7) General Reserve	75 000
(8) Retained Earnings	<u>375 000</u>
	<u>£1 030 000</u>

#### 1. Liabilities

Liabilities are the claims of all persons who are not shareholders in the company. Their claims may arise:

- because they have supplied the company with goods or services and have not yet been paid in money
- because they have lent money to the company
- because they have a claim on the company by operation of the law (for example in respect of taxes or in respect of compensation for damages caused by the company)

These claims can be reduced only when they are actually paid in money (or, on rare occasions, when the creditor agrees to release the claim without payment).



## 2. Ordinary Share Capital

This line in the balance sheet represents the ordinary shareholders' claim on the company in respect of the minimum value they had to pay in to the company, in exchange for the issue of their shares.

Under normal circumstances, as long as the company stays in existence, the claim to ordinary share capital may be reduced **only** if it is replaced by another claim which in turn cannot be reduced by repayment from the company unless/until the company is wound up and there are sufficient assets left (after payment of all other claims on the company).

## 3. Preference Share Capital

This represents the claim of a special class of shareholders in respect of the minimum value they had to pay in to the company, in exchange for the issue of their shares. Preference shareholders have a claim which resembles that of ordinary shareholders, except that the claims of preference shareholders always take precedence over the claims of ordinary shareholders.

## 4. Share Premium

This represents the claim of ordinary shareholders to any value paid in to the company by shareholders, in excess of the minimum they were required to pay in exchange for the issue of their shares. It may not normally be reduced, except by conversion into another non-reducible claim.

## 5. Revaluation Reserve

This represents the ordinary shareholders' claim to any unrealized increase in value of assets held in the company. Because the extra value is unrealized, it must not be paid out to shareholders, and to ensure that the extra value is locked in the company, this claim to the extra value may not be reduced.

## 6. Capital Redemption Reserve

The Capital Redemption Reserve is a claim created to replace another claim (share capital) which otherwise could not be reduced.

**7. General Reserve**

A general reserve is part of the shareholders' claim to any extra value that may have accumulated in the company as a result of profitable operations. The general reserve is separated from retained earnings to indicate that the company intends to keep this part of the extra value in the business, by not allowing the claim to it to be reduced (as it would have to be if the value were paid out to shareholders).

**8. Retained Earnings**

This represents the shareholders' claim to any extra value that may have accumulated in the company as a result of profitable operations, and which is legally and constitutionally available to be taken out of the company by shareholders. This is the only part of their claim that may be reduced when shareholders take value out of the company. Retained earnings therefore represents the maximum value that may be paid out to shareholders as a dividend.

## 65.2 A drill to practise accounting for revaluations

For each of the companies below, state the double entry required to account for the given situation, and show the entries on the relevant accounts.

### 1.

ABC plc has a fixed asset in its accounts at cost £400 000, less provision for depreciation £250 000. The company now wishes to revalue the fixed asset at £500 000.

#### Double Entry

DR	Fixed Asset at Valuation	£500 000	
DR	Provision for Depreciation	£250 000	
CR	Fixed Asset at Cost		£400 000
CR	Revaluation Reserve		£350 000

#### Entries on Accounts

<i>Fixed Asset Cost</i>			
<i>b/f</i>	<u>400 000</u>	<i>cancelled</i>	<u>400 000</u>

<i>Provision for Depreciation</i>			
<i>cancelled</i>	<u>250 000</u>	<i>b/f</i>	<u>250 000</u>

<i>Fixed Asset at Valuation</i>	
<i>new valuation</i>	500 000

<i>Revaluation Reserve</i>	
<i>claim to extra value</i>	350 000

**2.**

Five years after the revaluation above, during which time the company has been providing £10 000 per year depreciation on the revalued fixed asset, ABC plc disposes of the fixed asset for £420 000.

**Double Entry**

## 1. to account for fixed asset disposal

DR	Money or Promises	£420 000	
DR	Provision for Depreciation	£50 000	
DR	P&L Account (loss on disposal)	£30 000	
CR	Fixed Asset at Valuation		£500 000

## 2. to transfer Revaluation Reserve to P&amp;L Account

DR	Revaluation Reserve	£350 000	
CR	P&L Account		£350 000

**Entries on Accounts**

<i>Fixed Asset at Valuation</i>			
<i>b/f</i>	500 000	<i>cancelled on disposal</i>	500 000
	<u>500 000</u>		<u>500 000</u>
<i>Provision for Depreciation</i>			
		<i>to P&amp;L 1</i>	10 000
		<i>to P&amp;L 2</i>	10 000
		<i>to P&amp;L 3</i>	10 000
		<i>to P&amp;L 4</i>	10 000
		<i>to P&amp;L 5</i>	10 000
<i>cancelled on disposal</i>	50 000		
	<u>50 000</u>		<u>50 000</u>
<i>Revaluation Reserve</i>			
<i>to P&amp;L</i>	350 000	<i>b/f</i>	350 000
	<u>350 000</u>		<u>350 000</u>

<i>Money or Promises</i>	
420 000	
<i>P&amp;L Account for Period 6</i>	
<i>loss on disposal</i>	30 000
	<i>from Revaluation Reserve</i> 350 000

**3.**

DEF plc has a fixed asset in its accounts at cost £750 000, less provision for depreciation £350 000. The company now wishes to revalue the fixed asset at £600 000.

**Double Entry**

DR	Fixed Asset at Valuation	£600 000	
DR	Provision for Depreciation	£350 000	
CR	Fixed Asset at Cost		£750 000
CR	Revaluation Reserve		£200 000

**Entries on Accounts**

<i>Fixed Asset Cost</i>			
<i>b/f</i>	<u>750 000</u>	<i>cancelled</i>	<u>750 000</u>

<i>Provision for Depreciation</i>			
<i>cancelled</i>	<u>350 000</u>	<i>b/f</i>	<u>350 000</u>

<i>Fixed Asset at Valuation</i>	
<i>new valuation</i>	600 000

<i>Revaluation Reserve</i>	
<i>claim to extra value</i>	200 000

**4.**

Ten years after the revaluation above, during which time the company has been providing £12 000 per year depreciation on the revalued fixed asset, DEF plc disposes of the fixed asset for £400 000.

**Double Entry**

1. to account for fixed asset disposal

DR	Money or Promises	£400 000	
DR	Provision for Depreciation	£120 000	
DR	P&L Account (loss on disposal)	£80 000	
CR	Fixed Asset at Valuation		£600 000

2. to transfer Revaluation Reserve to P&L Account

DR	Revaluation Reserve	£200 000	
CR	P&L Account		£200 000

**Entries on Accounts**

<i>Fixed Asset at Valuation</i>			
<i>b/f</i>	600 000	<i>cancelled on disposal</i>	600 000
	<u>600 000</u>		<u>600 000</u>
<i>Provision for Depreciation</i>			
<i>cancelled on disposal</i>	120 000	10 years at £12 000 per year	120 000
	<u>120 000</u>		<u>120 000</u>
<i>Revaluation Reserve</i>			
<i>to P&amp;L</i>	<u>200 000</u>	<i>b/f</i>	<u>200 000</u>

<i>Money or Promises</i>	
400 000	
<i>P&amp;L Account for Period 11</i>	
<i>loss on disposal</i>	80 000
	<i>from Revaluation Reserve</i> 200 000

### 65.3 A drill to practise accounting for reserves in a limited company

For each of the companies below, state the double entry required to account for the given situation, and show the entries on the relevant accounts.

#### 1.

ABB plc has the balance sheet shown below:

##### ABB Balance Sheet

Net Assets	<u>£4 700</u>
Issued Share Capital	2 500
Share Premium	700
Other Reserves	300
Retained Profit	<u>1 200</u>
	<u>£4 700</u>

The company now wishes to redeem £500 of share capital at par, 'out of profits'.

#### Double Entry

DR	Issued Share Capital	£500	
CR	Net Assets		£500

DR	Retained Profit	£500	
CR	Capital Redemption Reserve		£500

#### Entries on Accounts

<i>Issued Share Capital</i>		<i>Net Assets</i>	
<i>redeemed and cancelled</i>	500	<i>b/f</i>	2 500
		<i>b/f</i>	4 700
		<i>repaid to shareholders</i>	500
<i>Retained Profit</i>		<i>Capital Redemption Reserve</i>	
<i>to Capital Redemption</i>	500		<i>from Retained Profit</i>
			500

ABB Balance Sheet after redemption of shares	
Net Assets	<u>£4 200</u>
Issued Share Capital	2 000
Share Premium	700
Other Reserves	300
Capital Redemption Reserve	500
Retained Profit	<u>700</u>
	<u>£4 200</u>

**2.**

BCC plc has the balance sheet shown below:

**BCC Balance Sheet**

Net Assets	<u>£5 500</u>
Issued Share Capital	3 000
Share Premium	500
Revaluation Reserve	750
Retained Profit	<u>1 250</u>
	<u>£5 500</u>

The company now wishes to establish a General Reserve of £250.

**Double Entry**

DR	Retained Profit	£250	
CR	General Reserve		£250

**Entries on Accounts**

<i>Retained Profit</i>				<i>General Reserve</i>			
<i>to General Reserve</i>	250	<i>b/f</i>	1 250		<i>from Retained Profit</i>	250	

<b>BCC Balance Sheet</b>	
after creation of General Reserve	
Net Assets	<u>£5 500</u>
Issued Share Capital	3 000
Share Premium	500
Revaluation Reserve	750
<b>General Reserve</b>	<b>250</b>
<b>Retained Profit</b>	<u><b>1 000</b></u>
	<u>£5 500</u>



**3.**

CDD plc has the balance sheet shown below:

**CDD Balance Sheet**

Net Assets	<u>£3 900</u>
Issued Share Capital	1 000
Share Premium	1 200
General Reserve	300
Retained Profit	<u>1 400</u>
	<u>£3 900</u>

The company now wishes to reduce its General Reserve to £200.

**Double Entry**

DR	General Reserve	£100	
CR	Retained Profit		£100

**Entries on Accounts**

<i>General Reserve</i>				<i>Retained Profit</i>			
<i>to</i>					<i>b/f</i>		1 400
<i>Retained Profit</i>	100	<i>b/f</i>	300		<i>from General Reserve</i>	100	

<b>CDD Balance Sheet</b> after reduction of General Reserve	
Net Assets	<u>£3 900</u>
Issued Share Capital	1 000
Share Premium	1 200
<b>General Reserve</b>	<b>200</b>
<b>Retained Profit</b>	<b><u>1 500</u></b>
	<u>£3 900</u>

## 66.1 A drill to practise accounting for bonus issues

For each of the companies below:

- show the standard working for the bonus issue
- state the double entry to account for the bonus issue
- show the balance sheet of the company after the bonus issue

### 1.

ABC Ltd begins with this balance sheet:

<b>ABC Balance Sheet</b> before bonus issue	
Net Assets	<u>£480</u>
Issued Share Capital	
560 shares of 50p	280
Retained Earnings	<u>200</u>
	<u>£480</u>

The company makes a 2 for 7 bonus issue.

### Standard Working for Bonus Issue

number of new shares	$560 \times \frac{2}{7} = 160$
<b>Nominal Value of new shares</b>	<b><math>160 \times 50p = £80</math></b>

### Double Entry

DR	Retained Earnings	£80	
CR	Issued Share Capital		£80

### Balance Sheet after Bonus Issue

<b>ABC Balance Sheet</b> after bonus issue	
Net Assets	<u>£480</u>
Issued Share Capital	
720 shares of 50p	360
Retained Earnings	<u>120</u>
	<u>£480</u>

**2.**

DEF Ltd begins with this balance sheet:

<b>DEF Balance Sheet</b> before bonus issue	
Net Assets	<u>£350</u>
Issued Share Capital	
1500 shares of 10p	150
Share Premium	50
Retained Earnings	<u>150</u>
	<u>£350</u>

The company makes a 1 for 5 bonus issue.

**Standard Working for Bonus Issue**

number of new shares	1 500	x	$\frac{1}{5}$	=	300
<b>Nominal Value of new shares</b>	<b>300</b>	x	<b>10p</b>	=	<b>£30</b>

**Double Entry**

DR	Share Premium	£30	
CR	Issued Share Capital		£30

**Balance Sheet after Bonus Issue**

<b>DEF Balance Sheet</b> after bonus issue	
Net Assets	<u>£350</u>
Issued Share Capital	
1800 shares of 10p	180
Share Premium	20
Retained Earnings	<u>150</u>
	<u>£350</u>

**3.**

GHI Ltd begins with this balance sheet:

<b>GHI Balance Sheet</b> before bonus issue	
Net Assets	<u>£1 725</u>
Issued Share Capital	
4000 shares of 25p	1 000
Capital Redemption Reserve	100
Retained Earnings	<u>625</u>
	<u>£1 725</u>

The company makes a 3 for 8 bonus issue.

**Standard Working for Bonus Issue**

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number of new shares	4 000	x	$\frac{3}{8}$	=	1 500
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<b>Nominal Value of new shares</b>	<b>1 500</b>	x	<b>25p</b>	=	<b>£375</b>
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**Double Entry**

DR	Capital Redemption Reserve	£100	
DR	Retained Earnings	£275	
CR	Issued Share Capital		£375

**Balance Sheet after Bonus Issue**

<b>GHI Balance Sheet</b> after bonus issue	
Net Assets	<u>£1 725</u>
Issued Share Capital	
5500 shares of 25p	1 375
Retained Earnings	<u>350</u>
	<u>£1 725</u>

**4.**

JKL Ltd begins with this balance sheet:

<b>JKL Balance Sheet</b> before bonus issue	
Net Assets	<u>£6 420</u>
Issued Share Capital	
1800 shares of £1	1 800
Revaluation Reserve	500
Retained Earnings	<u>4 120</u>
	<u>£6 420</u>

The company makes a 1 for 3 bonus issue.

**Standard Working for Bonus Issue**

number of new shares	1 800	x	$\frac{1}{3}$	=	600
<b>Nominal Value of new shares</b>	<b>600</b>	x	<b>£1</b>	=	<b>£600</b>

**Double Entry**

DR	Revaluation Reserve	£500	
DR	Retained Earnings	£100	
CR	Issued Share Capital		£600

**Balance Sheet after Bonus Issue**

<b>JKL Balance Sheet</b> after bonus issue	
Net Assets	<u>£6 420</u>
Issued Share Capital	
2400 shares of £1	2 400
Retained Earnings	<u>4 020</u>
	<u>£6 420</u>

## 66.2 A drill to practise determining the effect of a bonus issue on the market value of a company's shares

For each of the situations below, show the standard working for market value of a share after the bonus issue.

**1.**

Market value of a share in ABB Ltd before bonus issue: 63p

Bonus issue: 2 for 5

### Standard Working

	number of shares		price per share		value £
initial holding	5	x	£0.63	=	3.15
bonus issue	2				
after bonus issue	<u>7</u>	x	£0.45	=	<u>£3.15</u>
	<i>arithmetic:</i>		£0.45	=	$\frac{£3.15}{7}$

**2.**

Market value of a share in BCC Ltd before bonus issue: £1.10

Bonus issue: 3 for 7

### Standard Working

	number of shares		price per share		value £
initial holding	7	x	£1.10	=	7.70
bonus issue	3				
after bonus issue	<u>10</u>	x	£0.77	=	<u>£7.70</u>
	<i>arithmetic:</i>		£0.77	=	$\frac{£7.70}{10}$

**3.**

Market value of a share in CDD Ltd before bonus issue: 88p

Bonus issue: 3 for 8

**Standard Working**

	number of shares		price per share		value £
initial holding	8	x	£0.88	=	7.04
bonus issue	3				
after bonus issue	<u>11</u>	x	<b>£0.64</b>	=	<b><u>£7.04</u></b>
	<i>arithmetic:</i>		£0.64	=	$\frac{£7.04}{11}$

**4.**

Market value of a share in DFF Ltd before bonus issue: £1.60

Bonus issue: 1 for 3

**Standard Working**

	number of shares		price per share		value £
initial holding	3	x	£1.60	=	4.80
bonus issue	1				
after bonus issue	<u>4</u>	x	<b>£1.20</b>	=	<b><u>£4.80</u></b>
	<i>arithmetic:</i>		£1.20	=	$\frac{£4.80}{4}$

## 67.1 An exercise on reading the Statement of Changes in Equity

Consider the sample Statement of Changes in Equity presented in Box 67.1, and explain as far as you can the significance of each figure in the statement.

### BOX 67.1

#### Sample Presentation of the Statement of Changes in Equity

##### XYZ plc – Statement of Changes in Equity for the Year Ended 31 December 2050

	Share Capital £	Share Premium £	Other Reserves £	Currency Translation £	Retained Earnings £	Total £
Balance at 1 January 2050	363	180	570	145	761	2 019
Loss on currency translation				( 89)		( 89)
Gain on revaluation			26			26
Profit for period					549	549
Total Recognized Gains and Losses for the Period			26	( 89)	549	486
Dividends					( 172)	( 172)
Issue of Share Capital	120	680				800
<b>Balance at 31 December 2050</b>	<b>483</b>	<b>860</b>	<b>596</b>	<b>56</b>	<b>1 138</b>	<b>3 133</b>

### Response

This statement represents an analysis of how the total shareholders' claim on the company has changed in the course of the year.

**Share Capital** and **Share Premium** show the shareholders' claim on the company in respect of values they have paid in to the company, in exchange for the issue of shares. The statement shows that these claims increased by £800 during the year – i.e. that the company raised £800 from its shareholders. This was done by increasing the number of shares issued by about one third (the nominal value of shares issued increased by £120, from £363 to £483).

**Other Reserves – gain on revaluation:** the total shareholders' claim reported in the balance sheet also increased by £26 in respect of an unrealized increase in the value of an asset, which the company has decided to recognize in its accounts.



**Currency translation:** the company evidently holds some assets denominated in a depreciating foreign currency. As a result, foreign currency assets translated at one value in the opening balance sheet have been translated at a lower value in the closing balance sheet, resulting in a loss of £89. However, in previous years, similar movements in the opposite direction (assets denominated in an appreciating currency) meant that the firm started the year with accumulated gains of £145. It therefore ended the year with net accumulated gains on currency translation of £56.

**Retained Earnings** represents the shareholders' claim to realized extra value (extra net assets) accumulated as a result of successful operations. The statement shows that shareholders started with a claim to £761 of such extra net assets, that their claim was increased by profits of £549 made in the period, and decreased by the payment of a dividend of £172, leaving a final claim to £1 138 of extra net assets accumulated and kept in the company.

## 67.2 An exercise on reading the Cash Flow Statement

Figures based on the published Cash Flow Statements of two comparable companies are presented side by side below.

Compare the two statements, comment on the differences, and state, on the basis of the available evidence, with reasons, which company appears to you to be in a better financial position.

Cash Flow Statements	A	B
<b>Cash Flows from Operations</b>	2 116	3 412
interest paid	( 159)	( 364)
tax (paid) received	3	( 429)
Net Cash Flow from Operating Activities	<u>1 960</u>	<u>2 619</u>
<b>Cash Flows from Investing Activities</b>		
purchase of fixed assets	(2 018)	(2 700)
proceeds on disposal of fixed assets	151	664
interest received	112	96
	<u>(1 755)</u>	<u>(1 940)</u>
<b>Cash Flows from Financing Activities</b>		
proceeds from issue of shares	22	123
repayment of loans	(2 049)	( 109)
new borrowings	2 056	
dividends paid	( 131)	( 510)
Net Cash used in Financing Activities	<u>( 102)</u>	<u>( 496)</u>
<b>Net Increase in Cash</b>	<b>103</b>	<b>183</b>
Cash at 1 January 2050	700	1 146
<b>Cash at 31 December 2050</b>	<u><b>£ 803</b></u>	<u><b>£1 329</b></u>

### Response

It is difficult to judge performance from the Cash Flow Statement alone. We can see for example that B's cash flow from operations is 61% greater than A's. Positive cash flow is good, and more cash is better than less, but we cannot definitely say that B has performed better than A without also comparing the total value invested in each company.

However, bearing such limitations in mind, it is worth pointing out that:

- B is paying proportionately more interest – the company seems to have borrowed more heavily than A or at higher rates of interest
- A has received a tax refund – possibly tax relief in respect of losses

- B is more aggressively renewing its fixed assets, with a higher value of both fixed asset purchases and disposals
- it is curious and worth further investigation that A has received more interest, despite having less cash at the beginning and end of the period
- B has repaid £109 of loans. A seems to have paid off and renewed substantial borrowings, without any great overall increase

Overall, it would seem that both companies are in reasonable health financially – both have been able to increase their fixed asset base and pay dividends without substantial new share issues, and without significant new borrowings.

Comparing the two, B is perhaps in a better state than A. Despite greater investment in fixed assets, and some repayment of debt, B is still able to pay a dividend nearly four times greater than A (but note, we cannot be certain of this interpretation without sight of the balance sheets – B may be required to pay a bigger dividend because it has a greater value of shares in issue).

**68.1 A drill to practise the idea of profitability**

Consider each of the investment projects below, and determine which is the most profitable.

	A	B	C
<b>capital investment required</b>	£ 200 000	£ 800 000	£1 000 000
projected profit	£ 50 000	£ 120 000	£1
<b>expected time to generate profit</b>	<b>1 year</b>	<b>6 months</b>	<b>1 minute</b>

Assuming that each project could be repeated indefinitely, and that all carry the same degree of risk, which would you prefer to invest in?

### Response

If each project carries the same rate of risk, a rational investor will prefer to invest in the project with the highest rate of return. This depends not just on the ratio of profit to value invested, but also on the speed at which the project promises to generate the profit. Basic calculations are shown below:

	A	B	C
capital investment required	£ 200 000	£ 800 000	£1 000 000
projected profit	£ 50 000	£ 120 000	£1
expected time to generate profit	1 year	6 months	1 minute
<i>arithmetic</i>	$\frac{£50\,000}{£200\,000}$	$\frac{£120\,000}{£800\,000}$	$\frac{£1}{£1\,000\,000}$
rate of return	25% <i>per year</i>	15% <i>per half year</i>	0.0001% <i>per minute</i>

**Project A** promises a rate of return of 25 % per year.

**Project B** promises 15% per half-year, which is approximately equal to 30% per year. Project B therefore promises to be more profitable than Project A.

**Project C** requires an investment of £1 000 000, and promises a profit of only £1 each time it is undertaken. £1 is only 0.0001% of £1 000 000, but this is a rate of return *per minute*, and if the project can be repeated indefinitely, with 60 minutes in an hour, 24 hours in a day and 365 days in a year, we could take £1 per minute to be equal to £525 600 per year. On an investment of £1 000 000, this would be a rate of return of 52.56% per year.

Project C therefore promises to be the most profitable investment, and should be the one that is chosen.

## 68.2 An exercise on risk and rate of return

The figures below are taken from the published accounts of five listed companies.

For each company

- calculate the rate of return on equity achieved in the year under consideration
- calculate the return on capital employed.

company activity	micro-chip maker	cement producer	precision engineer	milk wholesaler	satellite broadcaster
operating profit	49 898	2 678	692	27 495	877
profit after tax	48 588	1 589	994	18 450	551
<b>borrowings</b>					
current	-	1 664	400	2 291	163
non-current	-	9 421	990	5 024	1 825
<b>total borrowings</b>	<b>nil</b>	<b>11 085</b>	<b>1 390</b>	<b>7 315</b>	<b>1 988</b>
<b>equity</b>	663 204	11 794	2 725	119 258	121
<b>capital employed</b>	<b>663 204</b>	<b>22 879</b>	<b>4 115</b>	<b>126 573</b>	<b>2 109</b>

### Response

company activity	micro-chip maker	cement producer	precision engineer	milk wholesaler	satellite broadcaster
<b>RoE</b> (profit after tax)	$\frac{48\,588}{663\,204}$ = <b>7.3%</b>	$\frac{1\,589}{11\,794}$ = <b>13.5%</b>	$\frac{994}{2\,725}$ = <b>36.5%</b>	$\frac{18\,450}{119\,258}$ = <b>15.5%</b>	$\frac{551}{121}$ = <b>455.4%</b>
<b>ROCE</b>	$\frac{49\,898}{663\,204}$ = <b>7.5%</b>	$\frac{2\,678}{22\,879}$ = <b>11.7%</b>	$\frac{692}{4\,115}$ = <b>16.8%</b>	$\frac{27\,495}{126\,573}$ = <b>21.7%</b>	$\frac{877}{2\,109}$ = <b>41.6%</b>

In your opinion, do your results support the theory that investors will only support higher risk investments if they produce higher rates of return?

### Response

In the tables below, the companies are ranked in ascending order of rate of return:

rank		RoE
1	micro-chip maker	7.3%
2	cement producer	13.5%
3	milk wholesaler	15.5%
4	precision engineer	36.5%
5	satellite broadcaster	455.4%

rank		ROCE
1	micro-chip maker	7.5%
2	cement producer	11.7%
3	precision engineer	16.8%
4	milk wholesaler	21.7%
5	satellite broadcaster	41.6%

Do we find that these rankings reflect an ascending order of risk? Not exactly. To an outsider, it would seem (at the time of writing) that designing and making micro-chips is probably the most risky activity of the five in our sample – because of the rate of change in the industry. Yet the micro-chip maker shows the lowest rate of return. Meanwhile satellite broadcasting would seem to be a fairly risk-free undertaking, once the initial risk of setting up the network has been overcome. Yet the satellite broadcaster shows spectacularly high rates of return.

These results draw attention to a number of factors concerning the evaluation of investments:

- The difference between the rate of return that investors may require, and the rate of return that they actually get. In accordance with theory, investors may not undertake a risky project unless they are *promised* a high rate of return, but there is no guarantee that they will *get* a high rate of return.
- The difference between the capital invested by a company and the capital invested by a shareholder (and hence a potential difference in the rates of return that each may achieve). The capital invested by a company is shown in the balance sheet with the cost of the goods and services acquired. This is the basis for our calculations of the company's rate of return on capital. The capital invested by a shareholder is the value paid for his or her shares. As we know, the market price of a share will vary, and in particular, if investors consider that the company is exposed to higher risk, the market price of its

shares will fall, so that any investors who buy the shares from then on will achieve a higher rate of return on their investment.

- The difference between the rate of return achieved by a company in the present, and the rate of return promised in the future. It may be that the micro-chip company in our example is currently building its business, which involves high expense and low profits (and therefore a low rate of return) in the present, but promises very high profits (and high rates of return) in the future.
- The difference between business risk and financial risk. While we lack the expertise to form any reliable judgement of the general business risks involved in the satellite broadcasting industry, it is plain to see that the particular company in our example has created huge financial risks for itself by borrowing more than sixteen times the value invested by its shareholders. (See more about this in the discussion of gearing in Chapters 69 and 70.)



**69.0 There are no drills or exercises on this chapter**

### 70.1 A drill to practise use of the gearing ratio

Below are extracts from the published accounts of two listed companies. One is a producer of luxury goods, the other owns and operates an electricity distribution network.

Calculate gearing ratios for each company, and state, with reasons, your opinion as to which is which.

	A	B
<b>EQUITY</b>	4 136	11 868
<b>BORROWINGS</b>		
current	1 025	3 376
non-current	14 686	4 443

#### Response

Workings for the gearing ratios are shown below:

	A	B
<b>EQUITY</b>	<u>4 136</u>	<u>11 868</u>
<b>BORROWINGS</b>		
current	1 025	3 376
non-current	<u>14 686</u>	<u>4 443</u>
	<u>15 711</u>	<u>7 819</u>
<b>EQUITY+DEBT</b>	<u><u>19 847</u></u>	<u><u>19 687</u></u>
debt:equity	$\frac{15\,711}{4\,136}$	$\frac{7\,819}{11\,868}$
	=	=
gearing	3.8	65.9%
debt:equity+debt	$\frac{15\,711}{19\,847}$	$\frac{7\,819}{19\,687}$
	=	=
gearing	79.2%	39.7%

Company A has very high gearing and is therefore most probably the owner/operator of the electricity distribution network. Such a company, with an extensive fixed asset base, would be able and likely to finance itself with borrowings to a far greater extent than a luxury goods company – which must be represented by Company B.

## 70.2 An exercise on interpretation of the gearing ratio

The figures given in question 70.1 are now supplemented with figures from the published accounts of the prior year.

For each company separately, calculate and compare gearing ratios for the current year and the prior year. Comment on any differences you may find, from one year to the next.

### A.

A		
	current year	prior year
<b>EQUITY</b>	4 136	3 493
<b>BORROWINGS</b>		
current	1 025	2 839
non-current	14 686	10 287

### Response

A		
	current year	prior year
<b>EQUITY</b>	<u>4 136</u>	<u>3 493</u>
<b>BORROWINGS</b>		
current	1 025	2 839
non-current	<u>14 686</u>	<u>10 287</u>
	<u>15 711</u>	<u>13 126</u>
<b>EQUITY+DEBT</b>	<u><u>19 847</u></u>	<u><u>16 619</u></u>
debt:equity	<u>15 711</u> <u>4 136</u>	<u>13 126</u> <u>3 493</u>
	=	=
gearing	<u>3.8</u>	<u>3.8</u>
debt:equity+debt	<u>15 711</u> <u>19 847</u>	<u>13 126</u> <u>16 619</u>
	=	=
gearing	<u>79.2%</u>	<u>79.0%</u>

Although this company has very high gearing, it is remarkably unchanged from prior year to current year, indicating (possibly) successful adherence to a strategically chosen target level of gearing.

**B.**

<b>B</b>		
	current year	prior year
<b>EQUITY</b>	11 868	10 065
<b>BORROWINGS</b>		
current	3 376	2 984
non-current	4 443	5 092

**Response**

<b>B</b>		
	current year	prior year
<b>EQUITY</b>	<u>11 868</u>	<u>10 065</u>
<b>BORROWINGS</b>		
current	3 376	2 984
non-current	<u>4 443</u>	<u>5 092</u>
	<u>7 819</u>	<u>8 076</u>
<b>EQUITY+DEBT</b>	<u>19 687</u>	<u>18 141</u>
<hr/>		
debt:equity	<u>7 819</u> <u>11 868</u>	<u>8 076</u> <u>10 065</u>
	=	=
gearing	65.9%	80.2%
<hr/>		
debt:equity+debt	<u>7 819</u> <u>19 687</u>	<u>8 076</u> <u>18 141</u>
	=	=
gearing	39.7%	44.5%

B has reduced its gearing (debt:equity+debt) from nearly 45% to less than 40%. This may be policy – even at nearly 40%, gearing remains rather high for a luxury goods company which (presumably) has comparatively few tangible fixed assets to provide security for loans, and for which demand and revenues cannot be forecast with any high degree of certainty.

**71.0 There are no drills or exercises on this chapter**

## 72.1 A drill to practise calculation and interpretation of working capital ratios

Below are extracts from the published accounts of two listed companies.

**A** is a producer of dairy foods, while **B** produces consumer durables or ‘white goods’ – washing machines, fridges, etc.

Calculate the following ratios for each company:

current ratio, quick ratio, days’ sales in stock, days’ sales in debtors, and days’ purchases in creditors.

Comment on your findings.

### A – producer of dairy foods

A : data		A : ratios	
Sales	1 355.2		
Cost of Sales	1 033.5	current ratio	$\frac{350.1}{222.3} = 1.6$
inventories	192.6		
trade receivables	142.8	quick ratio	$\frac{157.5}{222.3} = 0.7$
total current assets	350.1		
trade payables	173.3	days' sales in stock	$\frac{192.6}{1\,033.5} \times 365 = 68 \text{ days}$
total current liabilities	222.3		
opening stock	172.7	days' sales in debtors	$\frac{142.8}{1\,355.2} \times 365 = 38 \text{ days}$
<i>working for purchases</i>		days' purchases in creditors	$\frac{173.3}{1\,053.4} \times 365 = 60 \text{ days}$
Cost of Sales	1 033.5		
plus closing stock	192.6		
minus opening stock	( 172.7 )	working capital cycle	46 days
<b>purchases</b>	<b><u>1 053.4</u></b>		

### Comment

Although some processes, like cheese-making, require time for the product to mature, it is surprising, given that dairy products are perishable, that this manufacturer seems to hold stock for 68 days. The firm’s need for working capital is reduced by its ability to collect its debts quite promptly (within 38 days of sale), while taking 60 days to pay its creditors.

**B – producer of consumer durables**

B : data		B : ratios	
Sales	103 848		
Cost of Sales	79 664	current ratio	$\frac{44\ 091}{36\ 304} = 1.2$
inventories	12 041		
trade receivables	20 905	quick ratio	$\frac{32\ 050}{36\ 304} = 0.9$
total current assets	44 091		
trade payables	15 320	days' sales in stock	$\frac{12\ 041}{79\ 664} \times 365 = 55 \text{ days}$
total current liabilities	36 304		
opening stock	18 606	days' sales in debtors	$\frac{20\ 905}{103\ 848} \times 365 = 73 \text{ days}$
<i>working for purchases</i>		days' purchases in creditors	$\frac{15\ 320}{73\ 099} \times 365 = 76 \text{ days}$
Cost of Sales	79 664		
plus closing stock	12 041		
minus opening stock	(18 606)	working capital cycle	52 days
<b>purchases</b>	<b>73 099</b>		

**Comment**

It is interesting that this firm can (on average) make *and sell* a washing machine or a fridge in less time than it takes Firm A to make and sell the average dairy product. Part of the explanation may be that Firm A's perishable goods require specialized storage facilities (best provided by Firm A itself), while Firm B's customers (retail shops) are more willing to hold stocks for longer. So Firm A cannot dispatch its goods until the shops need them for immediate sale, while Firm B can dispatch goods to shops as soon as they are made.

B's debtor collection period of 73 days is quite long, but this may be allowed to encourage retailers to hold larger stocks. In any case it is more than compensated for by a very long creditor payment period of 76 days. When such a period is unusual in the industry, and is long and getting longer, it may indicate that the firm is having difficulty in making its payments as they fall due.

## 72.2 An exercise on the interpretation of working capital ratios

The figures given in question 72.1 are now supplemented with figures from the published accounts of the prior year.

For each company separately, calculate and compare working capital ratios for the current year and the prior year. Comment on any differences you may find, from one year to the next.

### A – producer of dairy foods

			A : ratios	current	prior
A : data	current	prior	current ratio	1.6	1.7
Sales	1 355.2	1 260.6	quick ratio	0.7	0.8
Cost of Sales	1 033.5	928.0	days' sales in stock	68 days	68 days
inventories	192.6	172.7	days' sales in debtors	38 days	36 days
trade receivables	142.8	124.0	days' purchases in creditors	60 days	59 days
total current assets	350.1	323.9	working capital cycle	46 days	45 days
trade payables	173.3	147.9			
total current liabilities	222.3	187.8			
opening stock	172.7	188.5			

### Comment

A's working capital position is remarkably unchanged from the prior year, and the very slight increase in the working capital cycle from 59 days to 60 is hardly significant. This may reflect continuous and very effective achievement of targets in working capital management. However, it may reflect simple complacency, with no efforts made to improve a working capital situation which is felt to be tolerable.



**B – producer of consumer durables**

			<b>B : ratios</b>		
				<b>current</b>	<b>prior</b>
			current ratio	<b>1.2</b>	1.4
			quick ratio	<b>0.9</b>	0.9
			days' sales in stock	<b>55 days</b>	88 days
			days' sales in debtors	<b>73 days</b>	88 days
			days' purchases in creditors	<b>76 days</b>	89 days
			working capital cycle	<b>52 days</b>	86 days

  

<b>B : data</b>	<b>current</b>	<b>prior</b>
Sales	103 848	100 701
Cost of Sales	79 664	77 270
inventories	12 041	18 606
trade receivables	20 905	24 269
total current assets	44 091	52 827
trade payables	15 320	18 798
total current liabilities	36 304	37 387
opening stock	18 606	19 170

**Comment**

There has been a radical improvement in B's working capital position between the prior period and the current period. The improvements are so widespread (in stock transit time, debtor collection and creditor payment) and so large that one may presume they are the successful result of deliberate policy. It would be interesting to see the results for the next following period, to see if further improvements were made, or if the firm began to slip back into its old ways.

**72.3 An exercise on the significance of working capital**

A supermarket, currently selling only food, is considering whether to expand into the sale of household goods. Comment on the possible effects of the change on the firm's working capital requirement.

**Response**

With food being mostly perishable, supermarkets have been able to achieve very rapid rates of inventory throughput. Since they buy on credit and sell for cash, this means that supermarkets often have no need for working capital – receiving payment for their sales before they have had to pay suppliers for their purchases.

It would be difficult, however, to achieve such high rates of throughput with household goods. As a result, with goods remaining in stock for a longer time, the firm in question might even find it necessary to pay suppliers before it had sold the goods and received payment from its customers. This would increase the firm's working capital requirement, and would have to be planned for if the firm did expand into this new area.

**73.1 A drill to practise profit ratios**

Below are extracts from the published accounts of three listed companies. Two are pharmaceutical companies, and the other is a supermarket.

- Calculate the following ratios for each company: gross profit ratio, net profit ratio (use the profit before tax), activity ratio (sales/equity) and activity ratio (sales/capital employed).
- Identify the odd one out and state whether, in your opinion, the sample consists of two supermarkets and one pharmaceutical company, or two pharmaceutical companies and one supermarket.
- Explain your opinion and comment on your findings.

**Data**

	<b>A</b>	<b>B</b>	<b>C</b>
Sales	26 475	39 454	23 225
Cost of Sales	(5 559)	(36 426)	(5 010)
Gross Profit	<u>20 916</u>	<u>3 028</u>	<u>18 215</u>
profit before tax	<u>8 543</u>	<u>2 235</u>	<u>7 799</u>
equity	<u>15 416</u>	<u>9 444</u>	<u>9 648</u>
current debt	136	1 646	718
long-term debt	<u>1 087</u>	<u>3 742</u>	<u>4 772</u>
total debt	<u>1 223</u>	<u>5 388</u>	<u>5 490</u>
capital employed	<u>16 639</u>	<u>14 832</u>	<u>15 138</u>

**Response**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Gross Profit Ratio</b>	$\frac{20\,916}{26\,475}$ = <b>79.0%</b>	$\frac{3\,028}{39\,454}$ = <b>7.7%</b>	$\frac{18\,215}{23\,225}$ = <b>78.4%</b>
<b>Net Profit Ratio</b>	$\frac{8\,543}{26\,475}$ = <b>32.3%</b>	$\frac{2\,235}{39\,454}$ = <b>5.7%</b>	$\frac{7\,799}{23\,225}$ = <b>33.6%</b>
<b>activity ratio sales/equity</b>	$\frac{26\,475}{15\,416}$ = <b>1.72</b>	$\frac{39\,454}{9\,444}$ = <b>4.18</b>	$\frac{23\,225}{9\,648}$ = <b>2.41</b>
<b>activity ratio sales/capital employed</b>	$\frac{26\,475}{16\,639}$ = <b>1.59</b>	$\frac{39\,454}{14\,832}$ = <b>2.66</b>	$\frac{23\,225}{15\,138}$ = <b>1.53</b>

**B** is clearly the odd one out (and is almost certainly the supermarket). It has very low profit margins and high activity ratios (both consistent with the high product throughput commonly associated with supermarket trading).

**A** and **C** (the pharmaceutical companies) evidently go together, with almost identical and very high profit margins, and very similar activity ratios, which are significantly lower than **B**'s activity ratios. These ratios are consistent with the profile of the pharmaceutical industry as one enjoying very high margins, coupled with a long product development cycle.

### 73.2 An exercise on profit ratios

The figures given in question 73.1 are now supplemented for companies A and B with figures from the published accounts of the prior year.

For each company separately, calculate and compare the same ratios as above for the current year and the prior year. Comment on any differences you may find, from one year to the next.

#### A.

pharmaceutical	current year	prior year	RATIOS	current year	prior year
Sales	26 475	23 950			
Cost of Sales	(5 559)	(5 356)			
Gross Profit	<u>20 916</u>	<u>18 594</u>	<b>Gross Profit Ratio</b>	<b>79.0%</b>	77.6%
profit before tax	<u>8 543</u>	<u>6 667</u>	<b>Net Profit Ratio</b>	<b>32.3%</b>	27.8%
equity	<u>15 416</u>	<u>13 691</u>	activity ratio <b>sales/equity</b>	<b>1.72</b>	1.75
current debt	<u>136</u>	<u>90</u>			
long-term debt	<u>1 087</u>	<u>1 111</u>	activity ratio <b>sales/capital employed</b>	<b>1.59</b>	1.61
total debt	<u>1 223</u>	<u>1 201</u>			
capital employed	<u>16 639</u>	<u>14 892</u>			

#### Comment

In the current year, A has reported a small increase in its already high gross profit margin, and a larger increase in its net profit margin, indicating an improvement in A's trading position or competitive power, coupled with some degree of cost reduction (whether this indicates greater efficiency or merely a cut in research and development expenditure would need to be investigated). At the same time, A's activity ratios indicate that although making more profit on each sale, the company has somewhat slowed down its rate of making sales.

**B.**

supermarket	current year	prior year	RATIOS	current year	prior year
Sales	39 454	33 866			
Cost of Sales	(36 426)	(31 231)			
Gross Profit	<u>3 028</u>	<u>2 635</u>	<b>Gross Profit Ratio</b>	<b>7.7%</b>	7.8%
profit before tax	<u>2 235</u>	<u>1 894</u>	<b>Net Profit Ratio</b>	<b>5.7%</b>	5.6%
equity	9 444	8 654	activity ratio		
current debt	1 646	482	<b>sales/equity</b>	<b>4.18</b>	3.91
long-term debt	3 742	4 563			
total debt	<u>5 388</u>	<u>5 045</u>	activity ratio		
capital employed	<u>14 832</u>	<u>13 699</u>	<b>sales/capital employed</b>	<b>2.66</b>	2.47

**Comment**

B's gross and net profit ratios show no great changes from prior year to current year (a tiny decrease in gross profit margin, coupled with an equally tiny increase in net profit ratio). If such small movements are at all significant, they would tend to indicate more competitive trading, and greater efficiency. Changes in B's activity ratios are somewhat larger and possibly more significant – they indicate that the firm has made its assets and its shareholders' investment work harder in the current year than in the previous year.

### 74.1 An exercise on investment ratios

Below are extracts from the five-year historical record published with the accounts of six listed companies, with their P/E ratio at the time of writing.

	current P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
<b>Water Company</b>	<b>P/E 22</b>					
earnings per share						
basic		43.40	80.30	39.00	52.90	106.10
adjusted		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
<b>Office Rental Co</b>	<b>P/E 5.9</b>					
earnings per share						
basic		2.10	(10.10)	15.10	39.30	91.70
adjusted		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
<b>Department Store</b>	<b>P/E 19.1</b>					
earnings per share						
basic		21.80	24.20	17.60	31.30	39.10
adjusted						
dividends per share		23.30	24.70	19.20	31.40	40.40
<b>Public Transport Co</b>	<b>P/E 17.7</b>					
earnings per share						
basic		38.00	28.70	42.60	43.70	51.80
adjusted						
dividends per share		17.20	18.00	18.90	19.84	20.83
<b>Pharmaceutical Co</b>	<b>P/E 14.6</b>					
earnings per share						
basic		65.15	73.62	80.98	82.60	95.50
adjusted						
dividends per share		40.00	41.00	42.00	44.00	48.00
<b>Satellite Broadcaster</b>	<b>P/E 18.7</b>					
earnings per share						
basic		-55.5	14.9	22.4	30.2	30.2
adjusted						
dividends per share		nil	nil	2.75	7.25	10.5

Study the table and:

- compute the dividend cover for each company for each year
- identify any periods in which the 'adjusted' earnings per share has turned out to be lower than the basic earnings per share. Comment
- identify any periods in which there was a fall in earnings per share, and compare the movement in that period of the dividend per share (increase, decrease or stay the same). Comment
- identify any period in which there was a cut in dividend
- compare each company's present P/E ratio against its trend of past earnings per share and dividends per share. Is there any relation?

(a)

Compute the dividend cover for each company for each year.

### Response

Dividend cover (basic earnings per share/dividend per share) for each company and year is as calculated in the highlighted figures below.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
<b>Water Company</b>					
basic earnings per share	43.40	80.30	39.00	52.90	106.10
dividends per share	45.90	47.04	48.51	51.13	61.45
<b>dividend cover</b>	<b>0.9</b>	<b>1.7</b>	<b>0.8</b>	<b>1.0</b>	<b>1.7</b>
<b>Office Rental Co</b>					
basic earnings per share	2.10	(10.10)	15.10	39.30	91.70
dividends per share	10.00	10.25	10.50	10.75	11.00
<b>dividend cover</b>	<b>0.2</b>	<b>-1.0</b>	<b>1.4</b>	<b>3.7</b>	<b>8.3</b>
<b>Department Store</b>					
basic earnings per share	21.80	24.20	17.60	31.30	39.10
dividends per share	23.30	24.70	19.20	31.40	40.40
<b>dividend cover</b>	<b>0.9</b>	<b>1.0</b>	<b>0.9</b>	<b>1.0</b>	<b>1.0</b>
<b>Public Transport Co</b>					
basic earnings per share	38.00	28.70	42.60	43.70	51.80
dividends per share	17.20	18.00	18.90	19.84	20.83
<b>dividend cover</b>	<b>2.2</b>	<b>1.6</b>	<b>2.3</b>	<b>2.2</b>	<b>2.5</b>
<b>Pharmaceutical Co</b>					
basic earnings per share	65.15	73.62	80.98	82.60	95.50
dividends per share	40.00	41.00	42.00	44.00	48.00
<b>dividend cover</b>	<b>1.6</b>	<b>1.8</b>	<b>1.9</b>	<b>1.9</b>	<b>2.0</b>
<b>Satellite Broadcaster</b>					
basic earnings per share	(55.50)	14.90	22.40	30.20	30.20
dividends per share	nil	nil	2.75	7.25	10.50
<b>dividend cover</b>	<b>n/a</b>	<b>n/a</b>	<b>8.1</b>	<b>4.2</b>	<b>2.9</b>

Ratios highlighted in pink are uncovered dividends – that is where the dividend is greater than the earnings for the period, so the dividend cover is less than 1.

It is interesting to compare the apparent policy of the office rental company (paying a steadily rising dividend regardless of profits or losses) and the department store (paying out a dividend in each year that is roughly equal in each year to the company's earnings per share).



**(b)**

Identify any periods in which the ‘adjusted’ earnings per share has turned out to be lower than the basic earnings per share. Comment.

### Response

An adjusted earnings per share is offered by only two companies in the table. Those highlighted in **green** below are cases where the adjusted eps is higher than the basic. Those highlighted in **pink** are cases where the adjusted eps is lower than the basic eps.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
<b>Water Company</b>	<b>P/E 22</b>				
earnings per share					
basic	43.40	80.30	39.00	52.90	106.10
adjusted	87.20	92.10	52.60	70.40	82.40
dividends per share	45.90	47.04	48.51	51.13	61.45
<b>Office Rental Co</b>	<b>P/E 5.9</b>				
earnings per share					
basic	2.10	(10.10)	15.10	39.30	91.70
adjusted	12.70	13.30	12.80	11.60	10.20
dividends per share	10.00	10.25	10.50	10.75	11.00

The Water Company’s basic earnings per share are surprisingly volatile, and the offering of the adjusted eps may be an attempt to present a smoother pattern of earnings (being much higher than the basic eps in years when basic earnings are exceptionally low, and much lower than basic eps when, as in Year 5, basic earnings are exceptionally high).

There is a similar smoothing effect in the adjusted eps of the Office Rental Company, although in this case the adjustment is more frequently down than up. This may indicate some fundamental difference between what the company is *obliged* to report as basic earnings, according to accounting rules and conventions, and what it believes it *ought* to report as earnings, according to the particular nature of the business.

(c)

Identify any periods in which there was a fall in earnings per share, and compare the movement in that period of the dividend per share (increase, decrease or stay the same). Comment.

### Response

In the table below, eps and dividends per share that are lower than the preceding period are highlighted in pink, while those that are higher than the preceding period are highlighted in green.

	Year 1	Year 2	Year 3	Year 4	Year 5
	all figures in pence				
<b>Water Company</b>	<b>P/E 22</b>				
basic earnings per share	43.40	80.30	39.00	52.90	106.10
adjusted earnings per share	87.20	92.10	52.60	70.40	82.40
dividends per share	45.90	47.04	48.51	51.13	61.45
<b>Office Rental Co</b>	<b>P/E 5.9</b>				
basic earnings per share	2.10	(10.10)	15.10	39.30	91.70
adjusted earnings per share	12.70	13.30	12.80	11.60	10.20
dividends per share	10.00	10.25	10.50	10.75	11.00
<b>Department Store</b>	<b>P/E 19.1</b>				
basic earnings per share	21.80	24.20	17.60	31.30	39.10
dividends per share	23.30	24.70	19.20	31.40	40.40
<b>Public Transport Co</b>	<b>P/E 17.7</b>				
basic earnings per share	38.00	28.70	42.60	43.70	51.80
dividends per share	17.20	18.00	18.90	19.84	20.83
<b>Pharmaceutical Co</b>	<b>P/E 14.6</b>				
basic earnings per share	65.15	73.62	80.98	82.60	95.50
dividends per share	40.00	41.00	42.00	44.00	48.00
<b>Satellite Broadcaster</b>	<b>P/E 18.7</b>				
basic earnings per share	-55.5	14.90	22.40	30.20	30.20
dividends per share	nil	nil	2.75	7.25	10.50

Notice that there is only one dividend cut (in a total of 24 possible cases), and that – apart from that single instance of a dividend cut – for the companies in our table, a fall in eps, or even a loss in a particular year, is invariably accompanied by an *increase* in dividend per share.

**(d)**

Identify any period in which there was a cut in dividend.

### Response

As shown in the table below, and noted in the answer to (c) above, there is only one instance of a company cutting its dividend.

	current P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
<b>Water Company</b>	<b>P/E 22</b>					
earnings per share						
basic		43.40	80.30	39.00	52.90	106.10
adjusted		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
<b>Office Rental Co</b>	<b>P/E 5.9</b>					
earnings per share						
basic		2.10	(10.10)	15.10	39.30	91.70
adjusted		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
<b>Department Store</b>	<b>P/E 19.1</b>					
earnings per share						
basic		21.80	24.20	17.60	31.30	39.10
adjusted						
dividends per share		23.30	24.70	19.20	31.40	40.40
<b>Public Transport Co</b>	<b>P/E 17.7</b>					
earnings per share						
basic		38.00	28.70	42.60	43.70	51.80
adjusted						
dividends per share		17.20	18.00	18.90	19.84	20.83
<b>Pharmaceutical Co</b>	<b>P/E 14.6</b>					
earnings per share						
basic		65.15	73.62	80.98	82.60	95.50
adjusted						
dividends per share		40.00	41.00	42.00	44.00	48.00
<b>Satellite Broadcaster</b>	<b>P/E 18.7</b>					
earnings per share						
basic		-55.5	14.9	22.4	30.2	30.2
adjusted						
dividends per share		nil	nil	2.75	7.25	10.5

There is some significance, I think, in the fact that the only company to make a cut in its dividend is the company identified in the answer to (a) as following an apparent policy of making its dividend roughly equal in each year to its earnings per share.

(e)

Compare each company's present P/E ratio against its trend of past earnings per share and dividends per share. Is there any relation?

### Response

The table below shows the different companies' ranking by P/E ratio.

	ranking by P/E ratio	Year 1	Year 2	Year 3	Year 4	Year 5
all figures in pence						
<b>Water Company</b>	<b>P/E 22</b>					
basic earnings per share	<b>1</b>	43.40	80.30	39.00	52.90	106.10
adjusted earnings per share		87.20	92.10	52.60	70.40	82.40
dividends per share		45.90	47.04	48.51	51.13	61.45
<b>Office Rental Co</b>	<b>P/E 5.9</b>					
basic earnings per share	<b>6</b>	2.10	(10.10)	15.10	39.30	91.70
adjusted earnings per share		12.70	13.30	12.80	11.60	10.20
dividends per share		10.00	10.25	10.50	10.75	11.00
<b>Department Store</b>	<b>P/E 19.1</b>					
basic earnings per share	<b>2</b>	21.80	24.20	17.60	31.30	39.10
dividends per share		23.30	24.70	19.20	31.40	40.40
<b>Public Transport Co</b>	<b>P/E 17.7</b>					
basic earnings per share	<b>4</b>	38.00	28.70	42.60	43.70	51.80
dividends per share		17.20	18.00	18.90	19.84	20.83
<b>Pharmaceutical Co</b>	<b>P/E 14.6</b>					
basic earnings per share	<b>5</b>	65.15	73.62	80.98	82.60	95.50
dividends per share		40.00	41.00	42.00	44.00	48.00
<b>Satellite Broadcaster</b>	<b>P/E 18.7</b>					
basic earnings per share	<b>3</b>	-55.5	14.90	22.40	30.20	30.20
dividends per share		nil	nil	2.75	7.25	10.50

#### COLOUR CODE

higher	than	previous
lower	than	previous

In this sample, perhaps surprisingly, there seems to be very little relation between high P/E ratio and steadiness or reliability of earnings – that is, there seems to be little relation between price and quality.