

## Chapter 16

1. Categorize each of the following markets as one of: competitive, monopolistic, or monopolistically competitive. Explain.

a. toothpaste

Answer:

monopolistically competitive—many firms, differentiated products, free entry

b. local newspapers

Answer: monopoly—one firm (unless there are a number of newspapers being produced by different publishers locally, of course)

c. magazines

Answer:

competitive—many firms, very similar products

d. wheat

Answer:

competitive—many small farmers each producing an almost identical product.

e. video games

Answer:

monopolistically competitive—many firms, differentiated products, free entry

f. beer

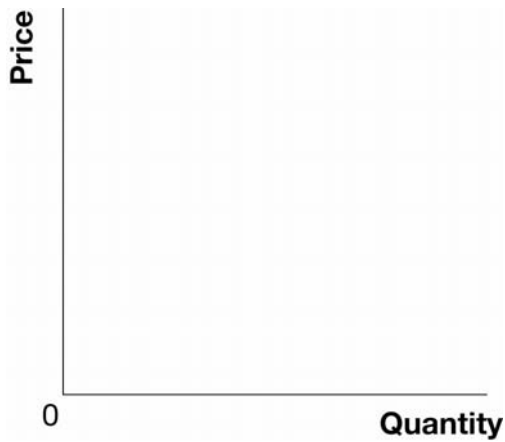
Answer:

Monopolistically competitive—many firms, but each attempts to differentiate their product in some way. Might also be seen as being oligopolistic as the brewing industry is dominated by a relatively small number of large firms each producing many different branded products.

2. Suppose that there are many restaurants in the city and that each has a somewhat different menu.

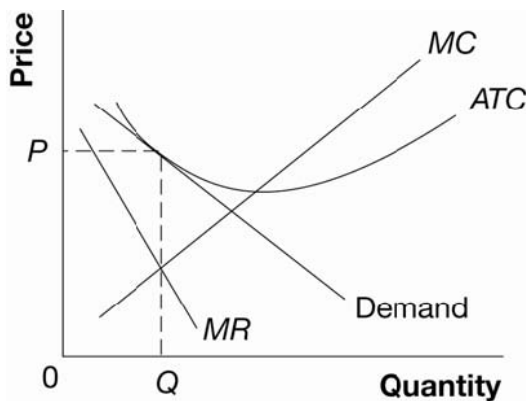
a. In Exhibit 1, draw the diagram of the cost curves (average total cost and marginal cost), demand curve, and marginal revenue curve for Mario's Pizza when it is in long-run equilibrium.

Exhibit 1



Answer: See Exhibit 5.

**Exhibit 5**



b. Is Mario's Pizza profitable in the long run? Explain

Answer:

No. Since there is free entry, profit causes firms to enter the industry, which reduces the existing demand faced by profitable firms until  $P = ATC$  and profit is zero.

c. Is Mario's Pizza producing at the efficient scale? Explain. Why doesn't Mario's expand its output if it has excess capacity?

Answer: No. Profits attract new firms, which reduces the demand for an incumbent firm's product to the point where its demand is tangent to its  $ATC$  curve causing  $P = ATC$  and profits equal zero. Since the tangency of demand and  $ATC$  is in the negatively sloping portion of  $ATC$ , the firm is operating at less than the efficient scale. If Mario's expanded output,  $MC$  would exceed  $MR$  and  $P < ATC$  so profits would be negative.

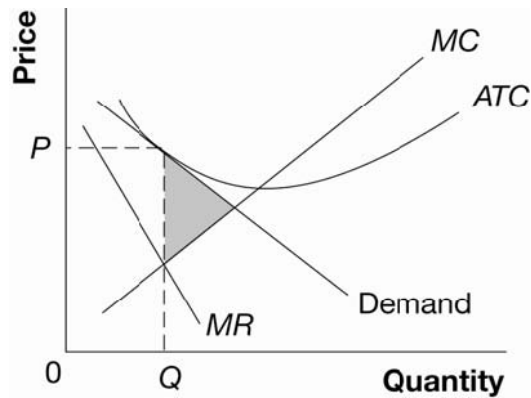
d. In Exhibit 1, show the deadweight loss associated with Mario's level of output. Does this deadweight loss occur because the price is higher than a competitive firm would charge or because the quantity is smaller than a competitive firm would produce? Explain.

Answer:

See Exhibit 6. The deadweight loss occurs because firms fail to produce units that the buyer values in excess of the cost of production. That is, the loss is due to the reduced quantity in

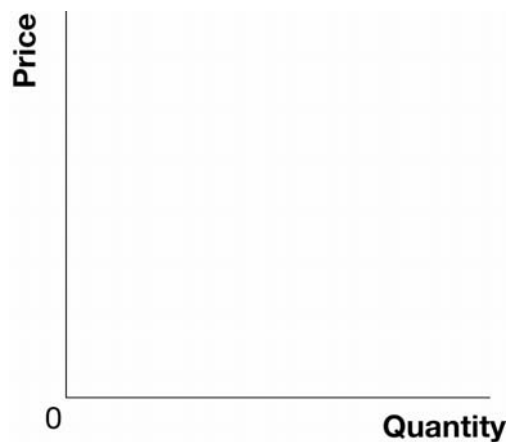
monopolistic competition.

### Exhibit 6



- e. Suppose that Mario's engages in an advertising campaign that is a huge success. In Exhibit 2, draw the diagram of Mario's cost curves, demand curve, and marginal revenue curve and show Mario's profit in the short run. Can this situation be maintained in the long run? Explain.

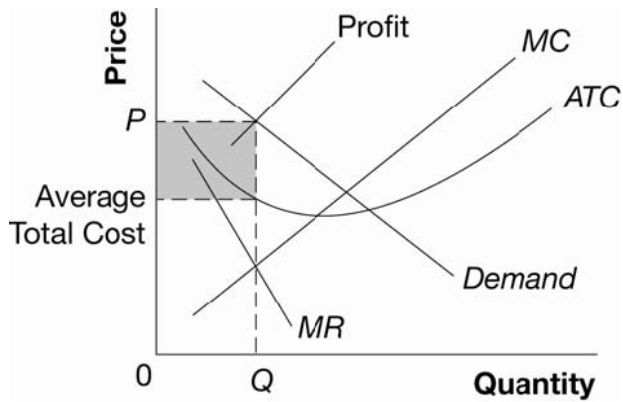
### Exhibit 2



Answer:

See Exhibit 7. No. Profits attract entry which reduces the demand faced by each firm to the point where it is again tangent to its *ATC* curve.

### Exhibit 7



3. For each of the following pairs of firms, which firm would likely spend a higher proportion of its revenue on advertising? Explain.
- a. The maker of Disprin or the maker of a generic aspirin pill produced by another firm

Answer:

The maker of Disprin because it is a branded or differentiated consumer good.

- b. a firm introducing a low quality ice cream or a firm introducing a high quality ice cream that each cost about the same to make.

Answer:

Firm generating high quality ice cream because advertising is more profitable if there are repeat buyers.

- c. the bakery that bakes Hovis bread or a wheat farmer

Answer:

The Hovis baker because it is a branded product and the firm will try and emphasise how it is different to other types of bread.