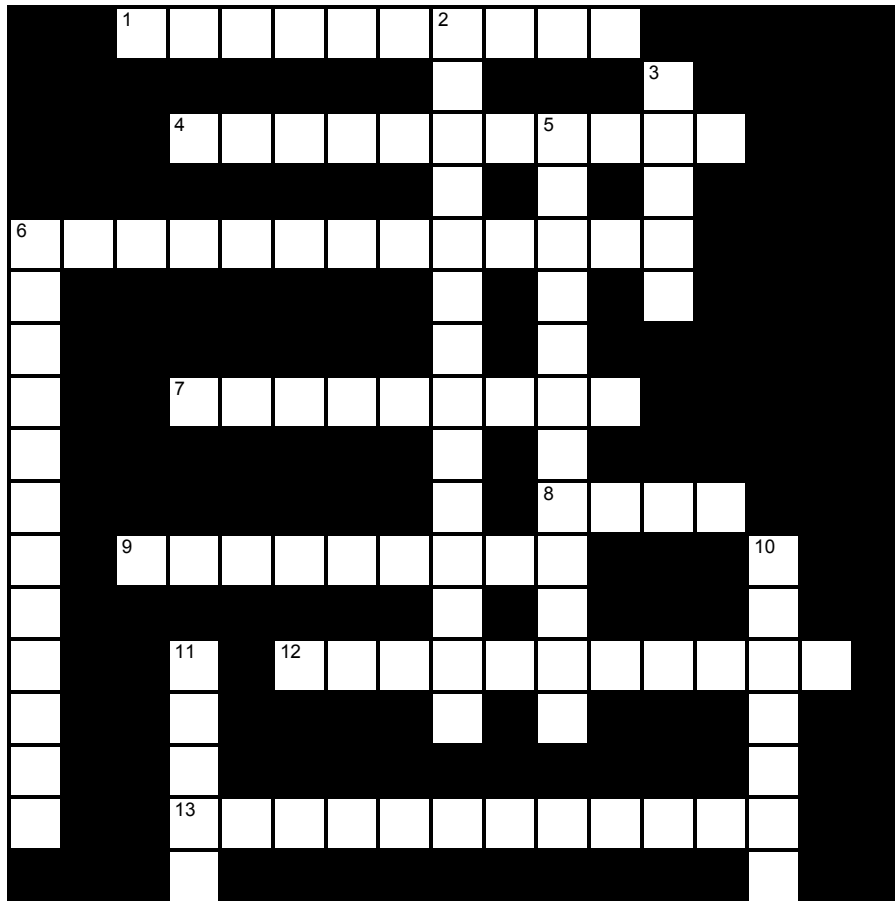# Anderson, Sweeney, Williams, Wisniewksi: An Introduction to Management Science
Chapters 7-9

Across

1 A procedure in which a modified distribution method determines the incoming arc in the transportation simplex method. (4,6)

4 The maximum amount of flow that can enter and exit a network system during a given period of time. (7,4)

6 '_____ method', using a sequence or path of occupied cells to identify flow adjustments necessary when flow is assigned to an unused arc in the transportation simplex method. This identifies the outgoing arc. (8-5)

7 '_____ method', a special-purpose solution procedure for solving an assignment problem. (9)

8 The lines connecting the nodes in a network. (4)

9 A common-sense procedure for quickly finding a solution to a problem. Used to find initial feasible solutions for the transportation simplex method and in other applications. (9)

12 '_____' loss: the amount of loss (lower profit or higher cost) from not making the best decision for each state of nature. (11)

13 An integer linear program in which some, but not necessarily all, variables are required to be integer. (5-7)

Down

2 '_____ problem': A network flow problem that often involves minimizing the cost of shipping goods from a set of origins to a set of destinations. (14)

3 The intersection or junction points of a network. (5)

5 The maximum flow for an arc of the network. (4,8)

6 A set of N - 1 arcs that connects every node in the network with all other nodes where N is the number of nodes. (8,4)

10 A graphical representation of a problem consisting of numbered circles (nodes) interconnected by a series of lines (arcs); arrowheads on the arcs show the direction of flow. (7)

11 '_____ origin': an origin added to a transportation problem in order to make the total supply equal to the total demand. The supply assigned to this is the difference between the total demand and the total supply. (5)