48. Read Chapter 6 of the textbook.
49. For the graphs in Problems 23 and 33 of Section 6.2 in the textbook, give the degree of each vertex and decide whether there is an Euler Cycle. If there is one, give it.
50. For the figure in the exercises to Section 6.4 in the textbook, use Dijkstra's Algorithm to find a shortest path between a and z.
51. Suppose it costs \$10,000 to purchase a new car. The annual operating cost for a car during it's first year is \$300, during the second year \$500, during the third year \$800, during the fourth year \$1200, during the fifth year \$1600, and during the sixth year \$2200. The resale value of a one year old car is \$7000, of a two year old car \$6000, for a three year old car \$4000, for a four year old car \$3000, for a five year old car \$2000, and for a six year old car \$1000. Assuming that one has a new car at present, determine a replacement policy that minimizes the net costs of owning and operating a car for the next six years. Draw a graph and use the Dijkstra Algorithm to work on this problem.