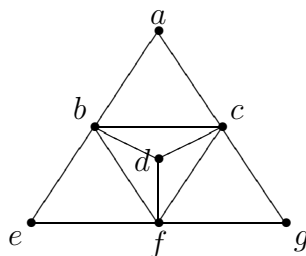


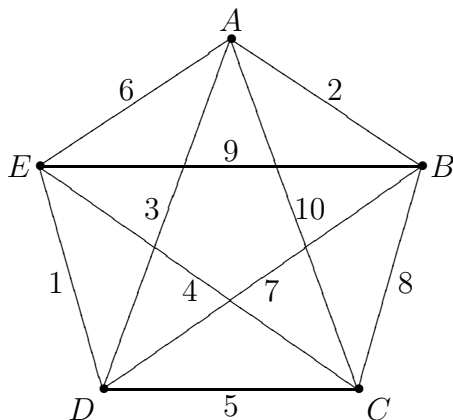
1. (3 points) Describe a Hamilton circuit in the following graph. Write your answer as a list of vertices.



2. (4 points, 1 each) True or false. Circle the correct answer, no justification.

- T F You can't tell whether a graph has a Hamilton cycle by checking the degrees of the vertices.
- T F The cheapest-link algorithm doesn't always find the optimal solution to the travelling salesman problem.
- T F The complete graph on 10 vertices, called K_{10} in the book, has $10! = 3,628,800$ different Hamilton circuits.
- T F The brute-force algorithm usually takes too long because there are too many possibilities to check.

3. (5 points) The next questions refer to the following weighted graph.



- (a) (3 points) Find a Hamilton cycle using the nearest-neighbor algorithm starting at B .
- (b) (2 points) Find a Hamilton cycle using the cheapest-link algorithm.