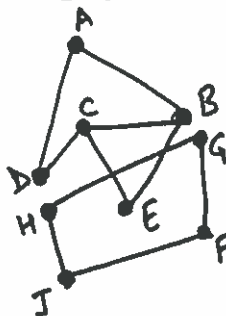
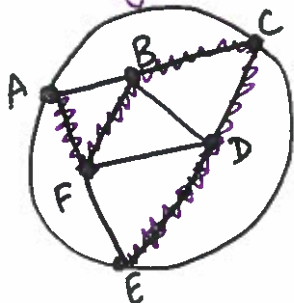


Name Solns.

- Put away all calculators and electronics
- You have 15 minutes for this quiz.

1. Find a spanning tree if possible in the following two graphs. If not, explain why.

Many possible answers.

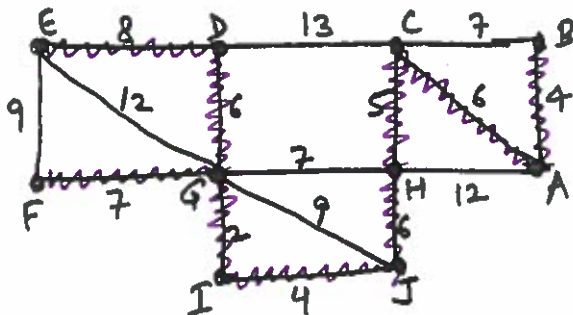


No spanning tree since graph is not connected.

2. Which of the following statement is true about spanning trees:

- (a) It is either a Hamiltonian circuit or an Eulerian circuit.
- (b) It is a complete subgraph.
- (c) It does not have to be connected.
- (d) It visits all the vertices of the graph.
- (e) It is a subgraph.

3. Using Kruskal's algorithm, find a minimum cost spanning tree in the following graph:



- 2 ✓
- 4 ✓
- 4 ✓
- 5 ✓
- 6 ✓
- 6, 6 ✓
- 7 X
- 7 X
- 7 ✓
- 8 ✓
- 9, 9 X
- 12 X
- 12 X
- 13 X

I G, I J, A B, C H, C A, J H, E D, D G, F G,

Cost! $2 + 4 + 4 + 5 + 6 + 6 + 6 + 7 + 8 = 48$

Done.