

1. How many vertices does a tree with 17 edges have?

1 / 1 point

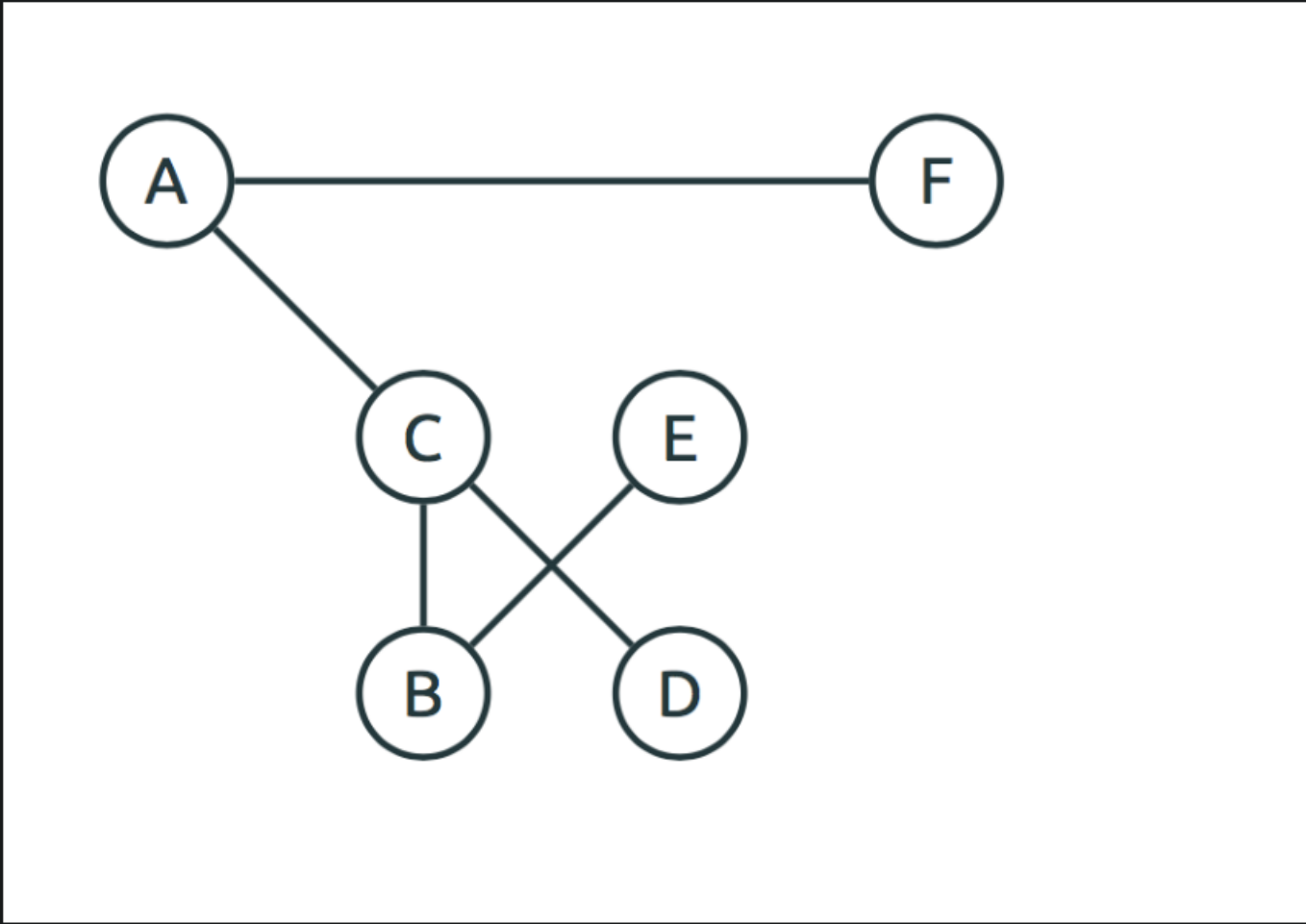
- ☐ n
- ☐ 16
- ☐ 17
- ☒ 18

✓ Correct

Correct, a tree with n vertices has $(n-1)$ edges.

2.

1 / 1 point

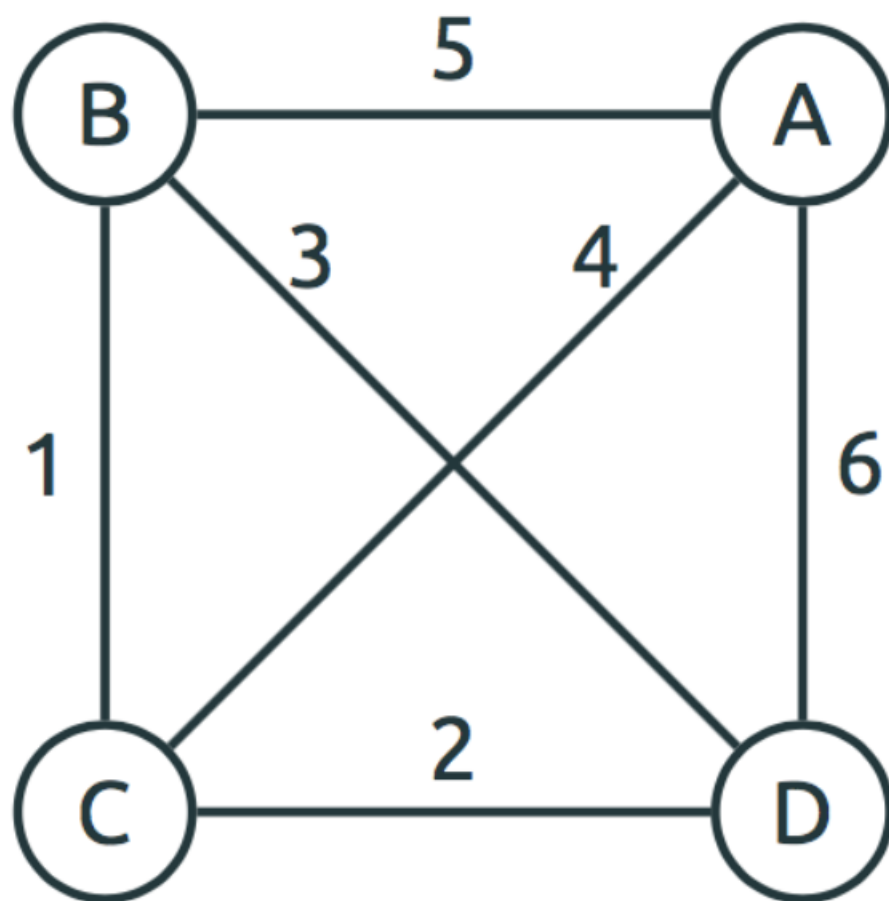


Is this graph a tree?

- ☒ Yes
- ☐ No

✓ Correct

Correct, this a connected graph with 6 vertices and five edges, so this is a tree.



What is the weight of the minimum spanning tree in this graph?

☐ 5

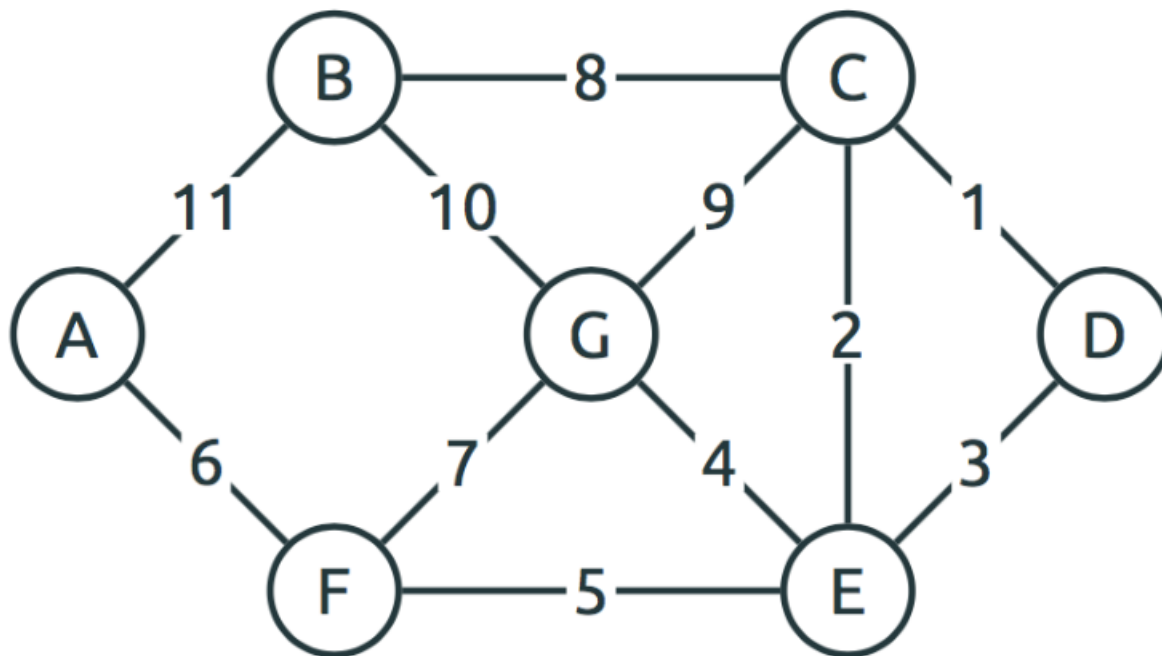
☐ 6

☒ 7

☐ 8

✓ **Correct**

Correct, the minimum spanning tree of this graph contains the edges {B,C}, {C,D}, and {A,C}.



What are the first three edges chosen by Kruskal's algorithm on this graph?

- ☒ {C, D}, {C, E}, {E, G}
- ☐ {B, G}, {C, G}, {A, B}
- ☐ {C, D}, {C, E}, {D, E}
- ☐ {C, D}, {D, E}, {E, G}

✓ **Correct**

Correct, the three edges of the least weights which don't create cycles.