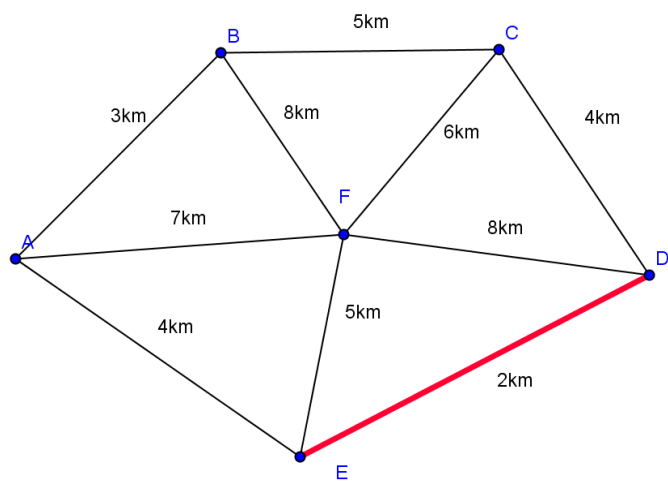
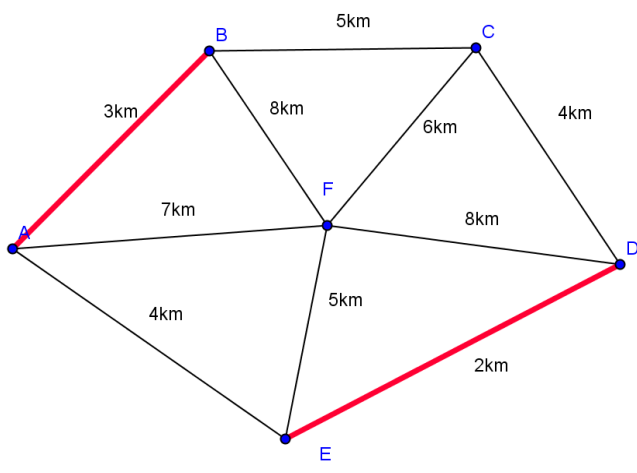


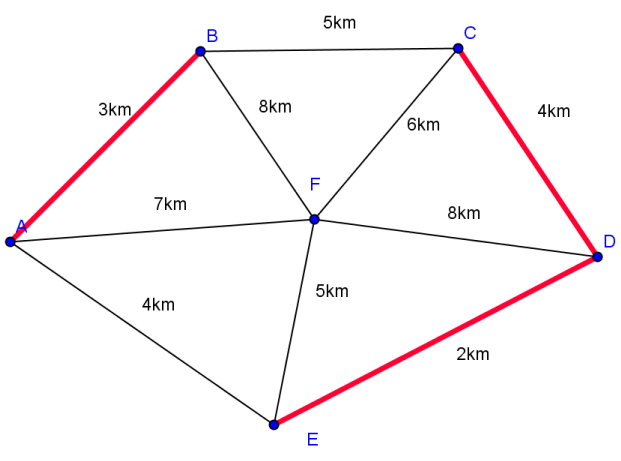
Select the shortest edge:
ED = 2.



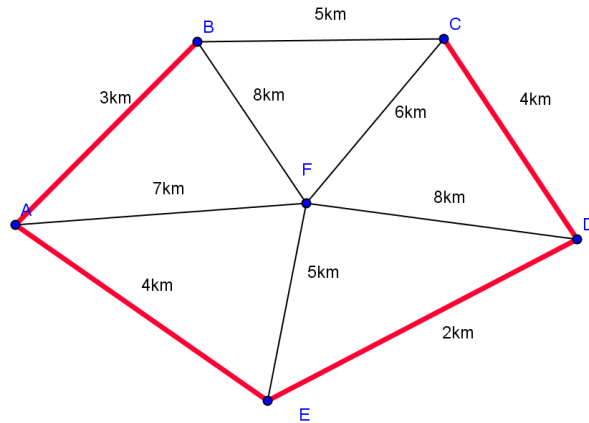
Select the next shortest edge which does not create a circuit:
AB = 3.



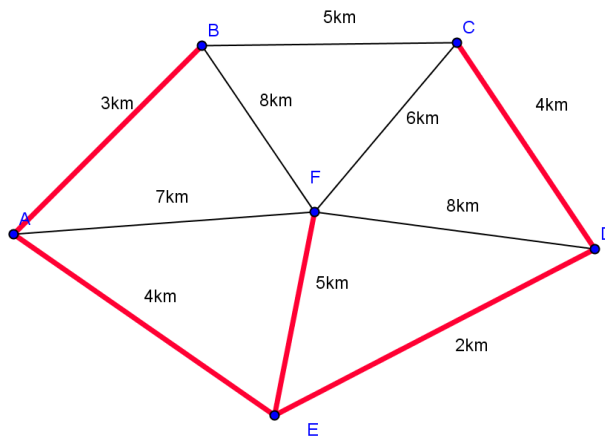
Repeat this step: CD = 4 (or you could choose AE = 4).



Repeat this step: $AE = 4$.



Repeat this step: $EF = 5$ (ignore BC because it creates a circuit).



- There are 6 vertices, and we now have 5 edges now. So we can stop.
- The minimum spanning tree is shown in red, and the minimum length of cabling required to connect the isolated farms is 18km.

Notes:

In this case, we have a unique minimum spanning tree.

If the length of BC was 4km, then the minimum spanning tree would still have length 18 km but would not be unique as any two of the edges AE, CD, and BC could have been chosen. The ones used simply depends on the order that the edges were written in the initial list.