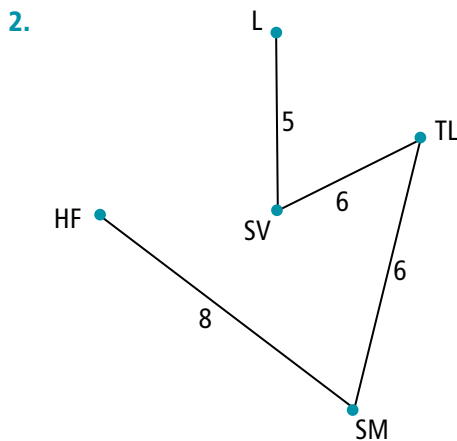
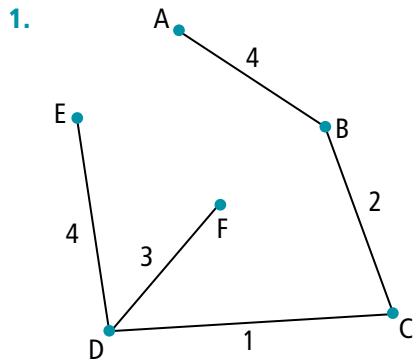


Achievement Standard 91260 (Mathematics and Statistics 2.5)

Apply network methods in solving problems

Practice assessment

Solutions



Minimum length of track is 25 km

3. a. AGEFD
b. 19 km

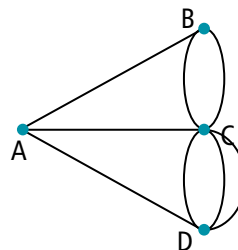
4. a.

Node	A	B	C	D
Order	3	3	5	3

A traversable network has 2 odd nodes or no odd nodes. In this network all nodes are odd, so it is not traversable.

b. i.

Node	A	B	C	D
Order	3	3	6	4



- ii. No, since to be traversable with the same starting point and ending point, all nodes in a network must be even. The new network with the extra bridge has 2 odd nodes (A and B).
iii. The network is traversable so long as the route starts at A and finishes at B (or starts at B and finishes at A). By taking a different route each time between repeated nodes in the route, one such route is BCDACDCBA.