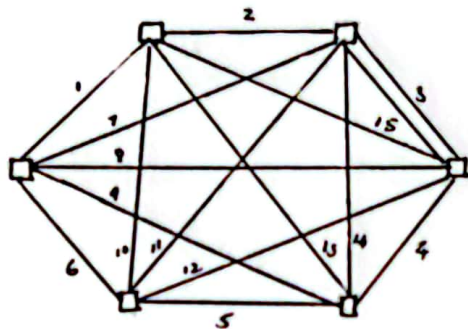


12. i) Draw a 6 node fullmesh network (you may draw the diagram, ~~text~~)
How many connections would the drawing require? Does this agree with the formula in the text?
How many connections would a fifty node full mesh require?

sol: > Six-node full mesh canvas:



Number of connections: 15

The formula - number of connections = $(\text{nodes}) \times (\text{nodes} - 1) / 2$

$$= 6 \times (6 - 1) / 2$$

= 15 connections

\therefore The figures matches the formula.

50-node mesh network:

$$\text{number of connections} = (\text{nodes}) \times (\text{nodes} - 1) / 2$$

$$= 50 \times (50 - 1) / 2$$

= 1225 connections.

13. ii) How many connections are required for 30 nodes to be connected in a full mesh topology.

$$\text{number of connections} = (\text{nodes}) \times (\text{nodes} - 1) / 2$$

$$= (30 \times 29) / 2$$

= 435 connections.