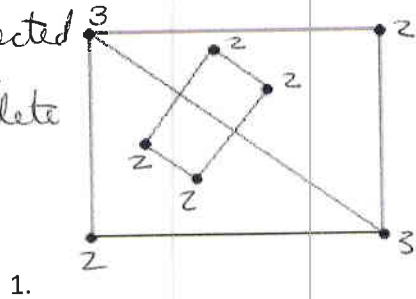


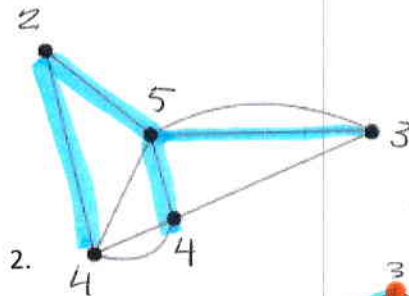
Instructions: Determine if the graphs are connected or disconnected. Are they a tree? A complete graph, or neither of these? State the number of vertices, number of edges, and the degree of each vertex. Find a spanning tree for each connected graph.

Not connected
Not a tree
Not complete
8 vertices
9 edges



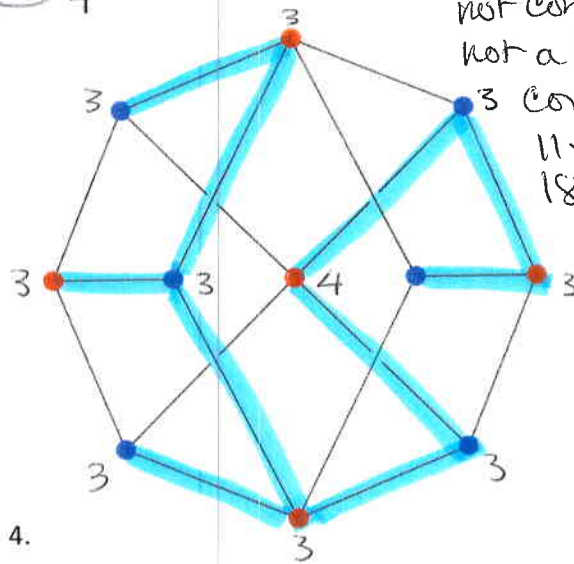
1.

Connected
Not a tree
Not complete
5 vertices
9 edges



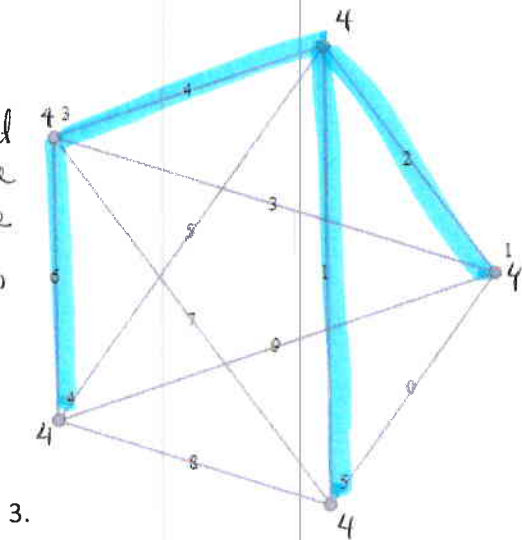
2.

Not complete
Not a tree
Connected
11 vertices
18 edges

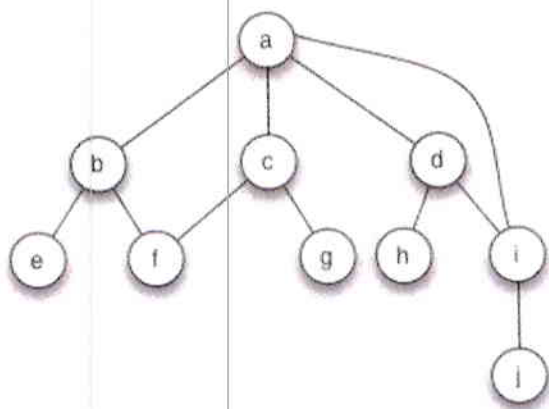


4.

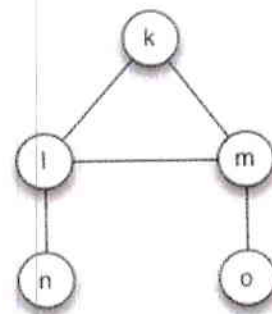
Connected
Complete
Not a tree
5 vertices
10 edges
 K_5



3.

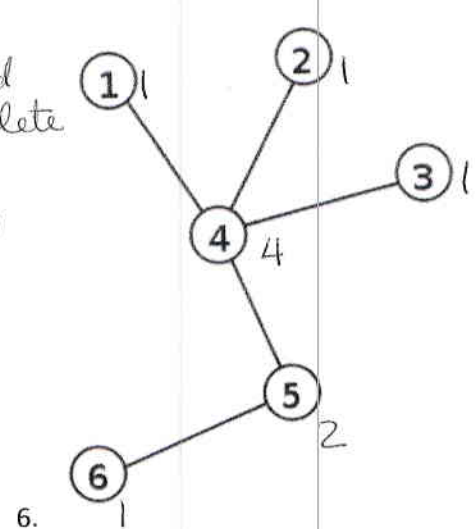


5.

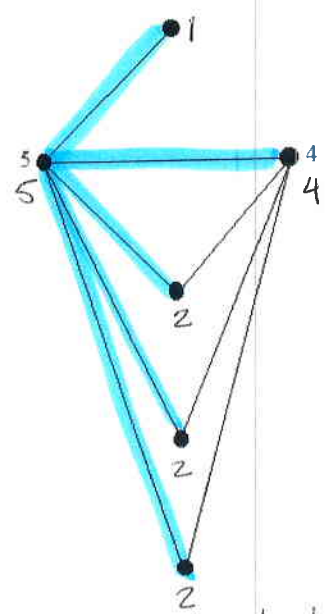


Not connected
Not a tree
Not complete
15 vertices
16 edges

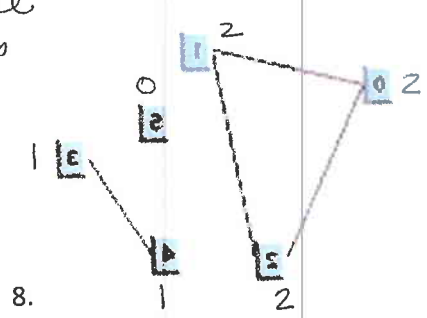
Connected
 Not complete
 a tree
 6 vertices
 5 edges



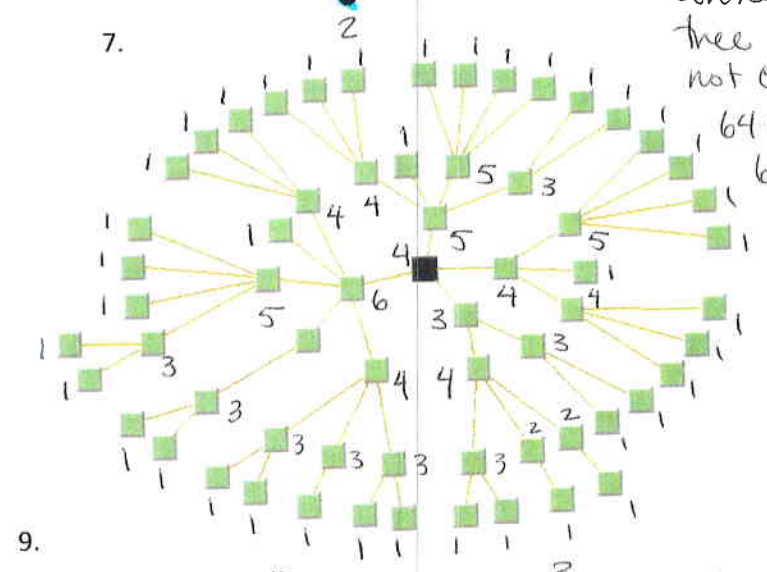
Connected
 not complete
 not a tree
 6 vertices
 8 edges



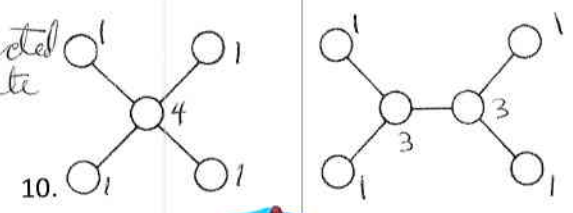
not connected
 not complete
 not a tree
 6 vertices
 4 edges



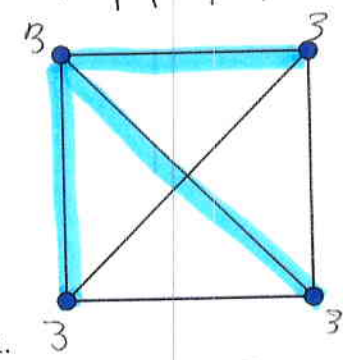
connected
 tree
 not complete
 64 vertices
 63 edges



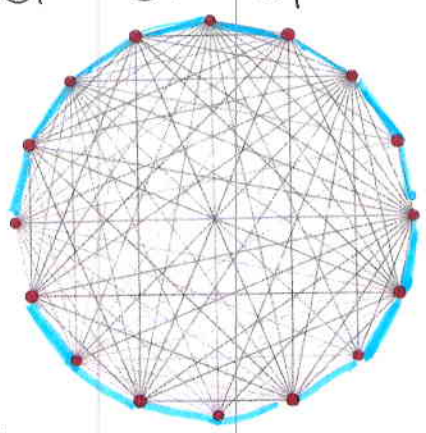
not connected
 not complete
 not a tree
 11 vertices
 9 edges



connected
 complete K_4
 not a tree
 4 vertices
 6 edges



K_{16}
 complete
 connected
 not a tree
 16 vertices
 105 edges
 all vertices
 degree 15



Connected
 tree
 not complete
 7 vertices
 6 edges

