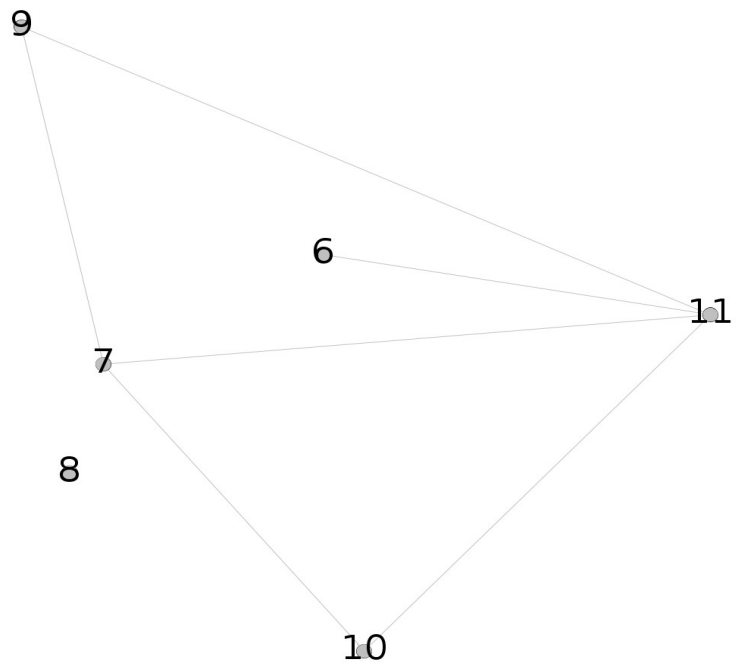
Extra Exersises 2

1. How many non-isomorphic simple graph exist with n vertices, where $n = 4$?

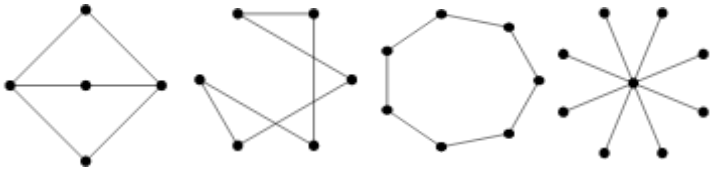
2. Given the following graph G, compute $\delta(G)$, $\Delta(G)$, and $d(G)$.



3. What is the maximum number of edges in an undirected graph with eight vertices?

4. If 10 people each shake hands with each other, how many handshakes took place? What does this question have to do with graph theory?

5. Which of the graphs below are bipartite? Justify your answers.



6. Which of the following graphs are trees?

a. G=(V,E) with V={a,b,c,d,e} and E={{a,b},{a,e},{b,c},{c,d},{d,e}}

b. G=(V,E) with V={a,b,c,d,e} and E={{a,b},{b,c},{c,d},{d,e}}

c. G=(V,E) with V={a,b,c,d,e} and E={{a,b},{a,c},{a,d},{a,e}}

d. G=(V,E) with V={a,b,c,d,e} and E={{a,b},{a,c},{d,e}}