Chapter 5: Network

5A Introduction to networks

1. a. i.4; ii. 6 b. i.4 ii. 2 iii. 3 iv. 3 c. 12 d. i. C and D ii. A and B

2.

a. i.4 ii. 6

- b. i. 3
 - ii. 3
 - iii. 3
 - iv. 3
- c. 12
- d. i. A, B, C and D ii. none

5B Isomorphic and planar graphs

- 1. a. isomorphic
 - b. not isomorphic
 - c. not isomorphic
 - d. isomorphic

2.





There are many other ways to obtain planar graphs

3.

3	2	3	2
4	5	7	2
6	5	9	2
9	6	13	2
18	12	28	2

5C Trails, paths and Eulerian circuits



Degree 3

Eulerian trails exist if the graph has either zero or exactly two vertices of odd degree. From the diagram there are more than two vertices of odd degree



Eulerian circuits have all vertices in the graph have an even degree, this diagram has two vertices are odd degree. Therefore, this diagram is **Eulerian trial**.