

Section covered

1.1, 1.2, 1.3 (except Graphic Sequences) and 1.4 (except Vertex Degrees).

2.1 (except Disjoint Spanning Trees) 2.2 (only Enumeration of Trees).

3.1 (except Dominating Sets).

4.1 (except Dominating Sets), 4.3.

6.1, 6.3 (except crossing number).

Theorems

You will be asked to prove one of these theorems. If the theorem has a name, you may also be asked to state the theorem.

1. Theorem (1.2.18)
2. Theorem (1.2.26)
3. Degree-Sum Formula (1.3.3)
4. Theorem (1.3.23)
5. Proposition (1.4.30)
6. Theorem (2.1.4)
7. Cayley's Formula (2.2.3)
8. Theorem (3.1.10)
9. Hall's Theorem (3.1.11)
10. Theorem (3.1.16)
11. Theorem (4.1.5)
12. Theorem (4.1.9)
13. Theorem (4.1.11)
14. Max-flow Min-cut (4.3.11)
15. Theorem (6.1.16)
16. Euler's Formula (6.1.21)
17. Theorem (6.1.23)
18. Five Color Theorem (6.3.1)