反馈与讨论

2014/12/3

8.3

- Fig. 8.5 shows two bipartite graphs G1 and G2, each with sets U = {v,w,x,y,z} and W = {a,b,c,d,e}. In each case can U be matched to W?

8.5

- Prove that every tree has at most one perfect matching.

8.14

- Prove that a graph G without isolated vertices has a perfect matching if and only if $\alpha_1(G) = \beta_1(G)$.

8.16

- Prove that if G is a graph of order n and maximum degree Δ, then α (G)>= n/(Δ +1).

8.18

- Give an example of a 5-regular graph that contains no 1-factor.

8.21

- Use Tutte's characterization of graphs with 1-factors (Theorem 8.10) to show that $K_{3,5}$ does not have a 1-factor.

8.24

- Show that every 3-regular bridgeless graph contains a 2-factor.