

## GRAPH THEORY: CLASS 18

1) Show that the graph  $G$  below is 1-factorable and find a 1-factor set that partition  $E(G)$ .

2) Show that the graph  $G$  below is 2-factorable and find a 2-factor set that partition  $E(G)$ .

3) Show that a 7-regular graph is nonplanar.

4) Use Kuratowski's theorem to show that  $K_4 \times K_2$  is nonplanar.