

Some Solutions to Practice Test 2

2. (a) Say G has a perfect matching. Then $G \square H$ has a spanning subgraph consisting of copies of G . Take the perfect matching withing each copy of G .
- (b) $K_3 \square K_3$ does not have a perfect matching. $K_3 \square K_{1,3}$ does have a perfect matching.
4. (a) $K_{2,2,2}$
- (b) Petersen Graph
- (c) 99
- (d) $1 \leq \kappa \leq 198$
- (e) $99 \leq \chi \leq 198$