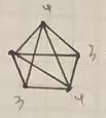
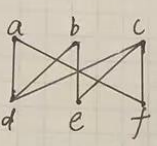
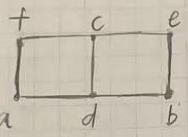
Homework 07 蒋云翔 22cs丁

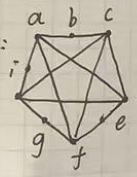
Section 10.7

Ex.4:  ⇒ Planar graph: 

Ex.6: 

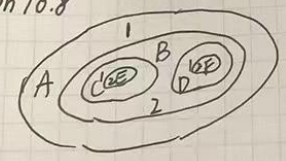
It is a simple graph, we can use ~~theorem~~ corollary 3
$e=7,\ V=6\quad 7<2\times6-4$, so it is planar:



Ex.24: 501: 

it is homeomorphic to K_5
so it is not planar

Section 10.8

Ex.4. 

Only 2 colors are needed
Group 1: A. 删掉 C. D
Group 2: B. E. F

Ex.18. There are only 2 channels are needed.
one is for: 3, 4 the other one is for: 1, 2, 5, 6

Section 11.1

Ex.18: $n=mi+1=5\times100+1=501$, so it has 501 vertices

Ex.28: As its definition: it has m^h leaves nodes

proof: when height=0, it has m^0 nodes
height=1, it has m^1 nodes
⋮
height=h, it has m^h nodes and they are all le nod