

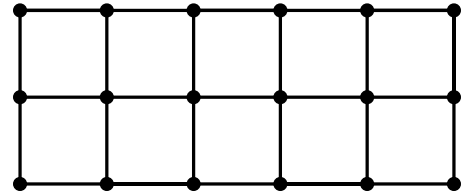
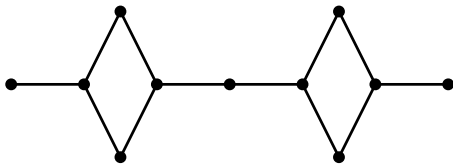
An incomplete review sheet for Exam 1

This review sheet is only a starting point, not a complete list. Can you do these problems easily? If not, should you look at more examples of this type? When and why do these problems arise?

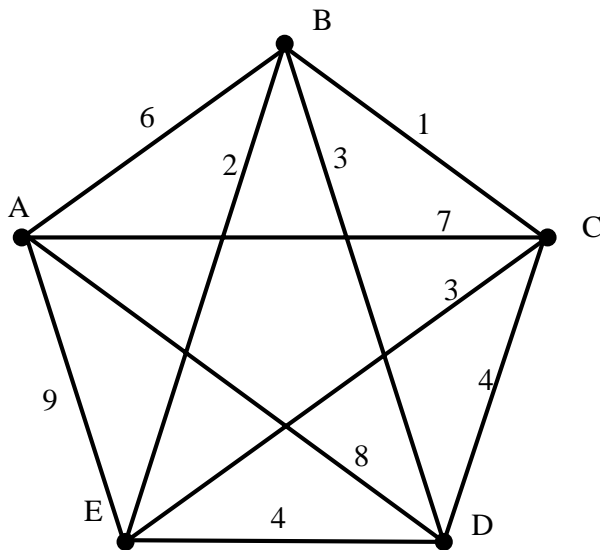
You should also look at the list of topics posted on the webpage:

www.math.uiuc.edu/~tcooney/math181/

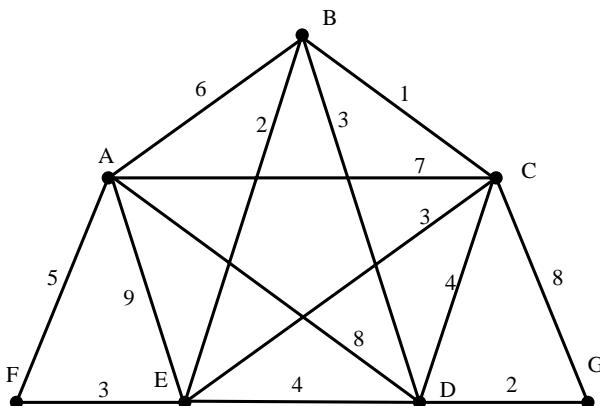
1. Eulerize the graph - duplicating as few edges as possible.



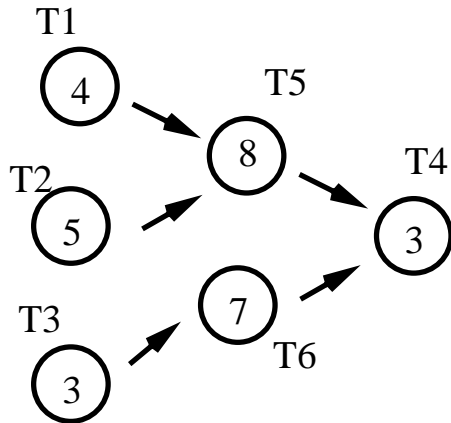
2. Apply Nearest Neighbour Algorithm starting at A. Apply Sorted Edges Algorithm.



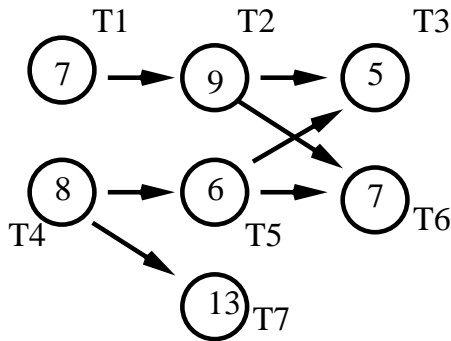
3. Apply Kruskal's Algorithm.



4. Apply the Priority List Scheduling Algorithm to the order-requirement digraph below with priority list $T_1, T_3, T_5, T_2, T_6, T_4$.



- Apply the Critical Path Scheduling algorithm to the order-requirement digraph above.
- What is the earliest possible completion time for the order-requirement digraph below if there are 2 processors? 3 processors?



- Apply the FFD, NFD, WFD algorithms to the problems of sorting weights of size:

6, 2, 4, 3, 5, 3, 2, 4

into bins of size 8.

- How many musical logos are possible if they must be

- 5 notes long
- each note is one of A, B, C, D, E, F, G
- the first note must be either A or B
- each note can be used only once

- Highschool road trip. How many cars are needed if an “x” indicates these two students cannot share a car?

	A	B	C	D	E	F	G
A		x			x		
B	x		x	x			x
C		x		x			x
D		x	x		x		
E	x			x			
F							
G		x	x				