

**Today:** Synthesis and review. Approx. alg. for metric TSP.

**Next class:** Synthesis and review.

**Reminders:** Term projects. Posters.

1. List the members of your group below. Underline your name.
2. Depict a complete graph on the seven vertices **a**, **f**, **fk**, **m**, **o**, **p**, **pi** and with the following distances on edges.

(a f 53) (a fk 315) (a m 228) (a o 118) (a p 81) (a pi 292)  
(f fk 303) (f m 266) (f o 147) (f p 100) (f pi 295)  
(fk m 278) (fk o 238) (fk p 394) (fk pi 82)  
(m o 121) (m p 292) (m pi 204)  
(o p 195) (o pi 193)  
(p pi 374)

3. Compute a *minimum-spanning tree* of the graph in Question 2 using a suitable algorithm. State the algorithm you use and trace its execution.

[additional space for answering the earlier question]

4. Use your solution to Question 3 to determine an approximate solution to the traveling salesman problem on the graph of Question 2.

5. Is the tour computed for Question 4 an optimal solution? Explain your answer briefly.