Today: Network flows. §§ 26.*.
Next class: NP completeness. §§ 34.*
Reminders: Term projects. Read material *before and after* class. Use newsgroup.

1. List the members of your group below. Underline your name.

2. Depict a bipartite graph with edges
   $\{(A, P), (A, Q), (B, P), (B, T), (C, Q), (C, T), (D, A), (D, S), (E, B), (E, C)\}$.

3. Map the instance of *maximum bipartite matching* with the graph of Question 2 as input to an instance of the *maximum flow* problem.

4. Trace the execution of the *Edmonds-Karp* algorithm on the maximum flow instance of Question 3. Clearly indicate the augmenting path and the resulting residual network for each augmentation.

5. (informal homework)

   (a) Do all (correct) implementations of the Ford-Fulkerson method always terminate? If so, explain why. Otherwise, provide a concrete example that leads to non-terminating behavior. [Hint: You can find the answer easily on Wikipedia and elsewhere, but try figuring it out yourself first for greater benefit and satisfaction.]

   (b) Does the sequence of flows generated by a F-F implementation always converge to the maximum network flow (independently of termination)? Explain.