Today: Graphs and paths. §§ 14.\{0,1,2,3\}.
Next class (after Thanksgiving break): Shortest-paths. §§ 14.\{4,5\}. (Differs from syllabus schedule.)
Reminders: Portfolio work; newsgroup; homework.

1. Write your group members’ names below. Underline your name.

2. Consider the following directed graph (digraph):

![Directed Graph]

(a) The graph’s order (number of vertices) is _____.
(b) The graph’s size (number of edges) is _____.
(c) The number of strongly connected components is _____.
(d) The number of connected components (undirected edges) is _____.
(e) The number of directed simple cycles is _____.
(f) The number of undirected simple cycles is _____.
(g) The length of the longest path is _____.
(h) The in-degree and out-degree of the vertex E are ____ and _____.
(i) The number of distinct simple paths from B to G is _____.
(j) The number of edge-disjoint paths from B to G is _____.
(k) The number of edge-disjoint paths from E to F is _____.
(l) The vertices adjacent to B (its out-neighbors) are _____________________.
(m) The vertices adjacent from B (its in-neighbors) are _____________________.

3. Depict an adjacency-list representation of the graph of Question 2.
4. Depict the action of the unweighted single-source shortest-path algorithm on the graph of Question 2 with source vertex B. Follow the conventions suggested by Figure 14.21 (p. 544) in the textbook.