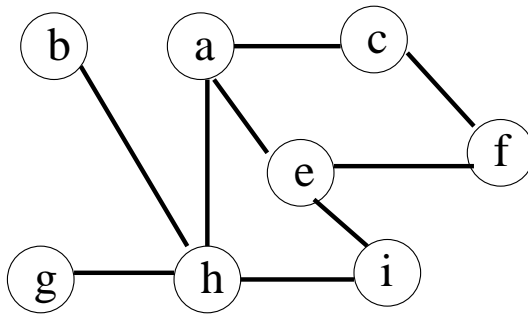


8. Homework

Due **11/6/07** before class

1. Making change

Find a real currency for which the greedy algorithm for making change will fail. You can use coins or bills of this currency. Give a link to a webpage describing the coin/bill denominations of the currency you found, and give a counterexample showing that the greedy algorithm does not work.



2. Adjacency matrix

Give the adjacency matrix representation of the above graph.

3. Adjacency lists

Give the adjacency lists representation of the above graph.

4. Depth-first search

Consider a depth-first traversal of the above graph, starting at vertex a . Draw the depth-first tree and the time stamps in which the vertices are visited, when the graph is given in your adjacency lists representation of question 3.

5. Breadth-first search

Consider a breadth-first traversal of the above graph, starting at vertex a . Draw the breadth-first tree and the time stamps in which the vertices are visited, when the graph is given in your adjacency lists representation of question 3.