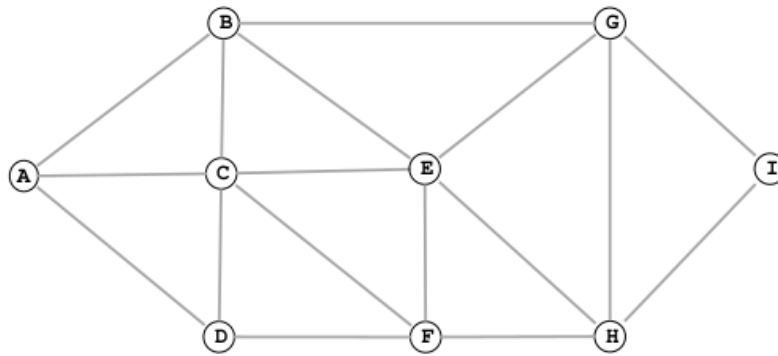


Homework 12

1. Fall 2009 Final Question 2a

Run *breadth-first search* on the graph below, starting adjacency sets are in sorted order, e.g., when exploring vertex F , the algorithm considers the edge $F-C$ before $F-D$, $F-E$, or $F-H$.



List the vertices in the order in which the vertices are enqueued on the FIFO queue.

A B C D E G F H I

2. Question 4.1.12

What does the BFS tree tell us about the distance from v to w when neither is at the root?

The breadth-first search tree tells us the shortest path from v to w that passes through the root.