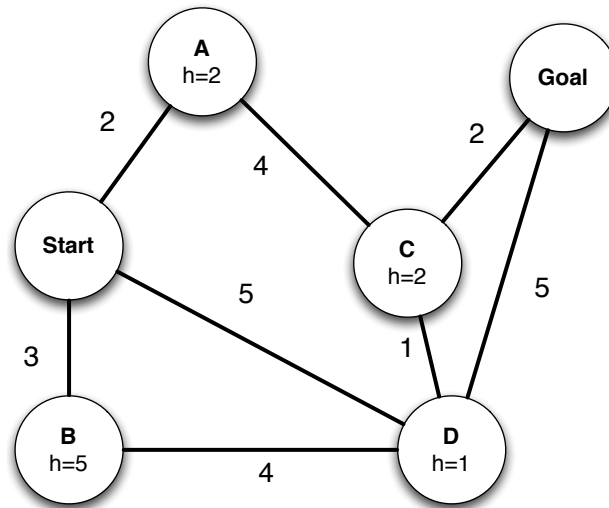


1 Search algorithms in action



For each of the following graph search strategies, work out the order in which states are expanded, as well as the path returned by graph search. In all cases, assume ties resolve in such a way that states with earlier alphabetical order are expanded first. The start and goal state are S and G, respectively. Remember that in graph search, a state is expanded only once.

- a) Depth-first search.
- b) Breadth-first search.
- c) Uniform cost search.
- d) Greedy search with the heuristic h shown on the graph.
- e) A^* search with the same heuristic.