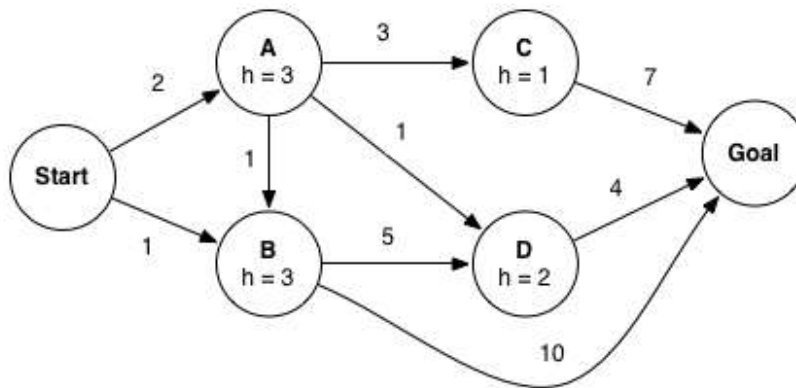


hw1_search_q4_a*_graph_search

Question 4: A* Graph Search

8/8 points (ungraded)

Consider A* graph search on the graph below. Arcs are labeled with action costs and states are labeled with heuristic values. Assume that ties are broken alphabetically (so a partial plan $S \rightarrow X \rightarrow A$ would be expanded before $S \rightarrow X \rightarrow B$ and $S \rightarrow A \rightarrow Z$ would be expanded before $S \rightarrow B \rightarrow A$).



In what order are states expanded by A* graph search? You may find it helpful to execute the search on scratch paper.

☐ Start, A, B, C, D, Goal

☐ Start, A, C, Goal

☒ Start, B, A, D, C, Goal ✓

☐ Start, A, D, Goal

☐ Start, A, B, Goal

☐ Start, B, A, D, B, C, Goal

What path does A* graph search return?

☐ Start-A-C-Goal

☐ Start-B-Goal

☒ Start-A-D-Goal ✓

☐ Start-A-B-Goal

☐ Start-A-B-D-Goal

Submit

✓ Correct (8/8 points)