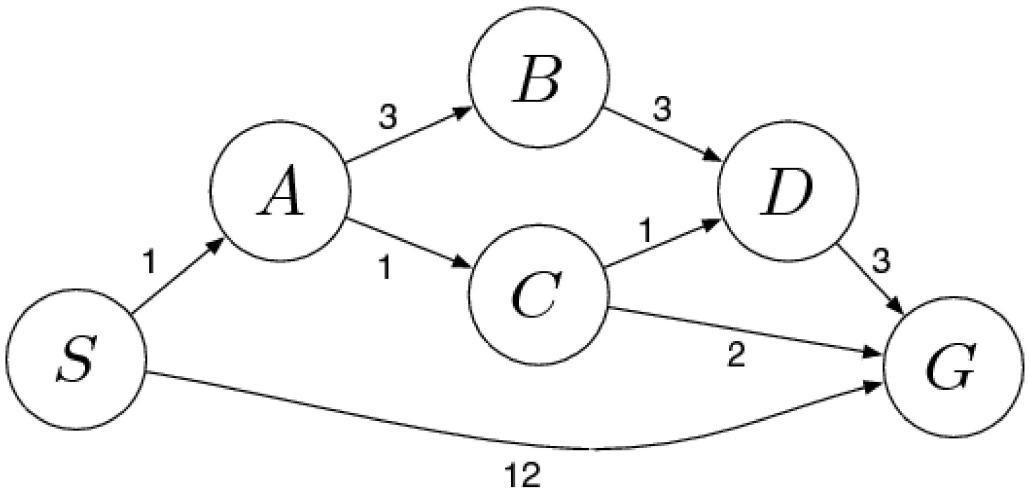
Q1: Search

Problem 1: Search



Answer the following questions about the search problem shown above. Break any ties alphabetically.

Part 1

1/1 point (ungraded)

What path would breadth-first graph search return for this search problem?

- $S \to G$ ✔
- $S \to A \to C \to G$
- $S \to A \to C \to D \to G$

- $S \to A \to B \to D \to G$

Submit

Part 2

1/1 point (ungraded)

What path would uniform cost graph search return for this search problem?

- $S \to G$
- $S \to A \to C \to G$ ✔
- $S \to A \to C \to D \to G$
- $S \to A \to B \to D \to G$

Submit

✔ Correct (1/1 point)

Part 3

1/1 point (ungraded)

What path would depth-first graph search return for this search problem?

- $S \to G$
- $S \to A \to C \to G$

- $S \to A \to C \to D \to G$
- $S \to A \to B \to D \to G$ ✔

Submit

✔ Correct (1/1 point)

Part 4

1/1 point (ungraded)

What path would A* graph search, using a consistent heuristic, return for this search problem?

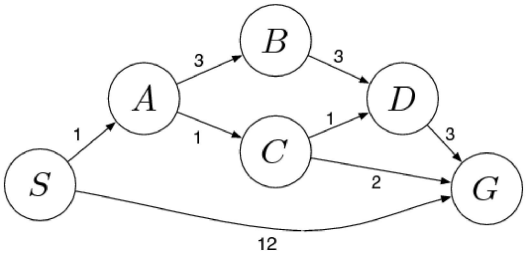
- $S \to G$
- $S \to A \to C \to G$ ✔
- $S \to A \to C \to D \to G$
- $S \to A \to B \to D \to G$

Submit

✔ Correct (1/1 point)

Consider the heuristics for this problem, shown in the table below. The search graph is repeated for your convenience.

State	h_1	h_2
S	5	4
A	3	2
B	6	6
C	2	1
D	3	3
G	0	0



Part 5

1/1 point (ungraded)
Is h_1 admissible?

- Yes
- No ✔

Submit

✔ Correct (1/1 point)

Part 6

1/1 point (ungraded)
Is h_1 consistent?

- Yes
- No ✔

Submit

✔ Correct (1/1 point)

Part 7

1/1 point (ungraded)
Is h_2 admissible?

- (•) Yes ✔
- ( ) No

Submit

✔ Correct (1/1 point)

Part 8

1/1 point (ungraded)
Is h_2 consistent?

- ( ) Yes
- (•) No ✔

Submit

✔ Correct (1/1 point)