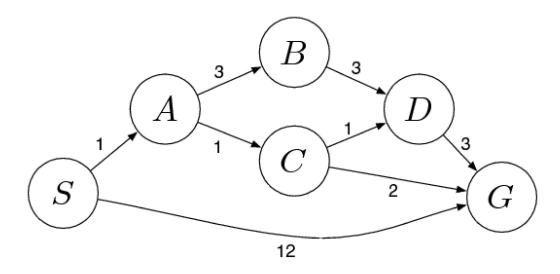


Course > Week 10 > Practic... > Q1: Se...

# Q1: Search

Problem 1: Search



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

# Part 1

0.0/1.0 point (ungraded)

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

$$ullet$$
  $S o G ullet$ 

$$\circ$$
  $S o A o C o G$ 

$$lacksquare S 
ightarrow A 
ightarrow C 
ightarrow D 
ightarrow G$$

	S  o	$\cdot A$	$\rightarrow$	$\boldsymbol{B}$	$\rightarrow$	D	$\rightarrow$	G
--	------	-----------	---------------	------------------	---------------	---	---------------	---

Submit

You have used 0 of 1 attempt

**1** Answers are displayed within the problem

#### Part 2

0.0/1.0 point (ungraded)

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

$$ullet$$
  $S o A o C o G ullet$ 

$$igcup S 
ightarrow A 
ightarrow C 
ightarrow D 
ightarrow G$$

$$\bigcirc$$
  $S \rightarrow A \rightarrow B \rightarrow D \rightarrow G$ 

Submit

You have used 0 of 1 attempt

**1** Answers are displayed within the problem

### Part 3

0.0/1.0 point (ungraded)

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

$$\circ$$
  $S o G$ 

$$lacksquare S 
ightarrow A 
ightarrow C 
ightarrow G$$

$$\bigcirc \hspace{0.1cm} S \to A \to C \to D \to G$$

$$ullet$$
  $S o A o B o D o G w$ 

Submit

You have used 0 of 1 attempt

**1** Answers are displayed within the problem

#### Part 4

0.0/1.0 point (ungraded)

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

$$\circ$$
  $S o G$ 

$$ullet$$
  $S o A o C o G w$ 

$$lacksquare S 
ightarrow A 
ightarrow C 
ightarrow D 
ightarrow G$$

$$igcup S 
ightarrow A 
ightarrow B 
ightarrow D 
ightarrow G$$

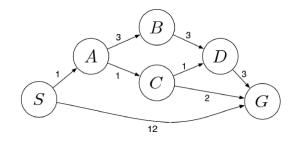
Submit

You have used 0 of 1 attempt

**1** Answers are displayed within the problem

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

State	$h_1$	$h_2$	
$\boldsymbol{S}$	5	4	
A	3	2	
$\boldsymbol{B}$	6	6	
$\boldsymbol{C}$	2	1	
D	3	3	
$\boldsymbol{G}$	0	0	



## Part 5

0.0/1.0 point (ungraded) Is  $m{h_1}$  admissible?

- Yes
- No

Submit

You have used 0 of 1 attempt

**1** Answers are displayed within the problem

### Part 6

0.0/1.0 point (ungraded)

Is  $h_1$  consistent?

- Yes
- No

