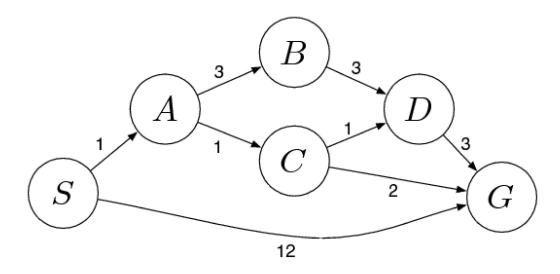


Course > Week 10 > Practic... > Q1: Se...

# Q1: Search

Problem 1: Search



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

## Part 1

1/1 point (ungraded)

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

$$ullet$$
  $S o G াlde{ullet}$ 

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

$$\circ$$
  $S \rightarrow A \rightarrow C \rightarrow D \rightarrow G$ 

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

Submit

#### Part 2

1/1 point (ungraded)

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

- $\circ$  S o G
- ullet  $S o A o C o G wledsymbol{\checkmark}$
- igcup S o A o C o D o G
- lacksquare S 
  ightarrow A 
  ightarrow B 
  ightarrow D 
  ightarrow G

Submit

✓ Correct (1/1 point)

### Part 3

1/1 point (ungraded)

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

- $\circ$   $S \rightarrow G$
- $\circ$   $S \rightarrow A \rightarrow C \rightarrow G$

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

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

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?

$$\circ$$
  $S o G$ 

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

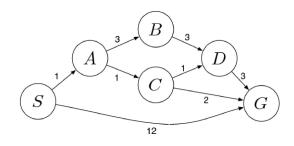
$$lacksquare S 
ightarrow A 
ightarrow B 
ightarrow D 
ightarrow G$$

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



# Part 5

1/1 point (ungraded) Is  $m{h_1}$  admissible?

|--|



Submit

✓ Correct (1/1 point)

### Part 6

1/1 point (ungraded) Is  $m{h_1}$  consistent?

○ Yes



Submit
✓ Correct (1/1 point)
Part 7
1/1 point (ungraded) Is $oldsymbol{h_2}$ admissible?
● Yes ✔
O No
Submit
✓ Correct (1/1 point)
Part 8
1/1 point (ungraded) Is $oldsymbol{h_2}$ consistent?
O Yes
● No ✔
Submit
✓ Correct (1/1 point)