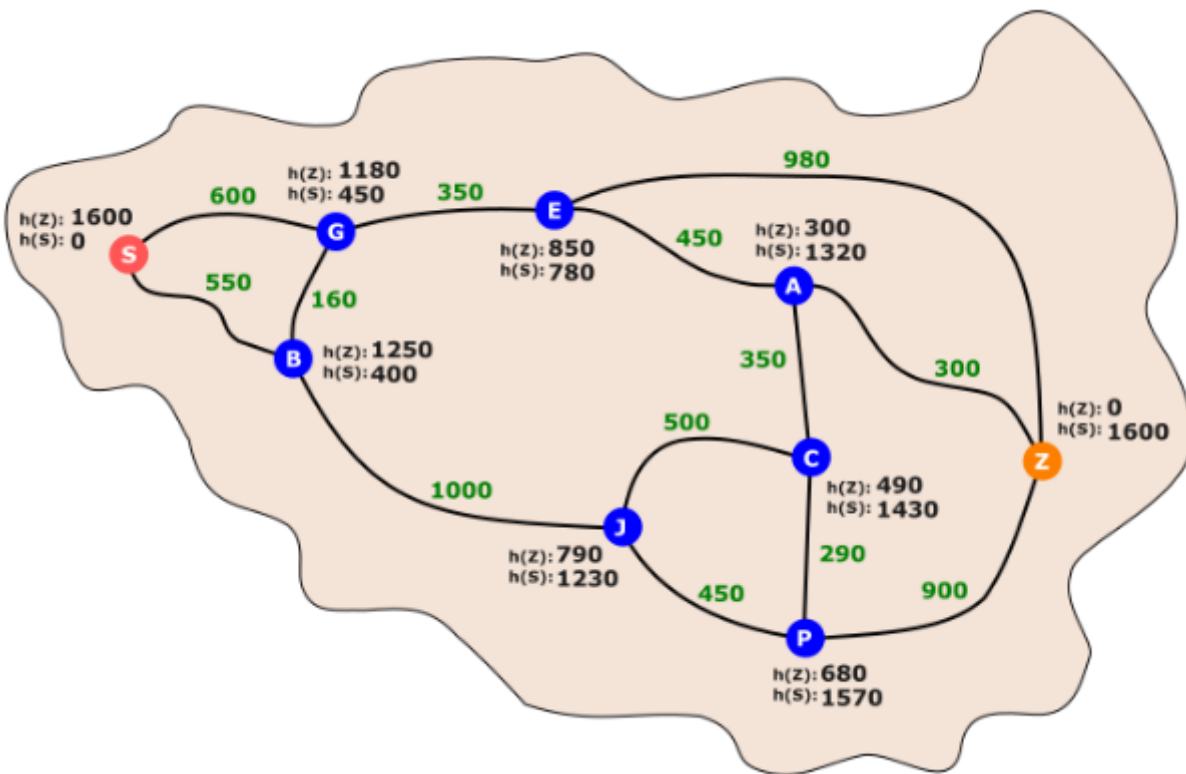


Midterm

Part 2 of 5 - Graph Search

The attached map (search_graph.png) will be used for the questions in this section. The green text corresponds to the true cost of a given edge, $h(Z)$ is the straight-line distance from a node to the goal node Z, and $h(S)$ is the straight-line distance from a node to the start node S.

Attachments



Question 10 of 33

0.0 Points

Which nodes are in the explored set of the search from S to Z if we use Breadth First Search?

- ☐ A. A
- ☒ B. B
- ☐ C. C
- ☒ D. E
- ☒ E. G
- ☒ F. J
- ☐ G. P
- ☒ H. S
- ☐ I. Z

Question 11 of 33

0.0 Points

Please write the path found by a breadth first search from S to Z. Please format your answer as a comma-separated list of nodes from S to Z.

(Maximum number of characters: 60000)

[Show/Hide Rich-Text Editor](#)

S,G,E,Z

Question 12 of 33

0.0 Points

Which nodes are in the explored set of the search from S to Z if we use Uniform Cost Search?

- ☒ A. A
- ☒ B. B
- ☐ C. C
- ☒ D. E
- ☒ E. G
- ☒ F. J
- ☐ G. P
- ☒ H. S
- ☒ I. Z

Question 13 of 33

0.0 Points

Please write the path found by a uniform cost search from S to Z. Please format your answer as a comma-separated list of nodes from S to Z.

(Maximum number of characters: 60000)

[Show/Hide Rich-Text Editor](#)

S,G,E,A,Z

Question 14 of 33

0.0 Points

Which nodes are in the explored set of the search from S to Z if we use Bi-directional A* Search?

- ☒ A. A
- ☒ B. B
- ☐ C. C
- ☒ D. E
- ☒ E. G
- ☐ F. J
- ☐ G. P
- ☒ H. S
- ☒ I. Z

Question 15 of 33

0.0 Points

Please write the path found by a bi-directional A* search from S to Z. Please format your answer as a comma-separated list of nodes from S to Z.

(Maximum number of characters: 60000)

[Show/Hide Rich-Text Editor](#)

S,G,E,A,Z

Question 16 of 33

0.0 Points

Which of the following Search Algorithms are optimal?

- ☒ A. A*
- ☐ B. Depth First Search
- ☒ C. Memory Deepening A*
- ☒ D. Uniform Cost Search
- ☐ E. Iterative Deepening Depth First Search

Question 17 of 33

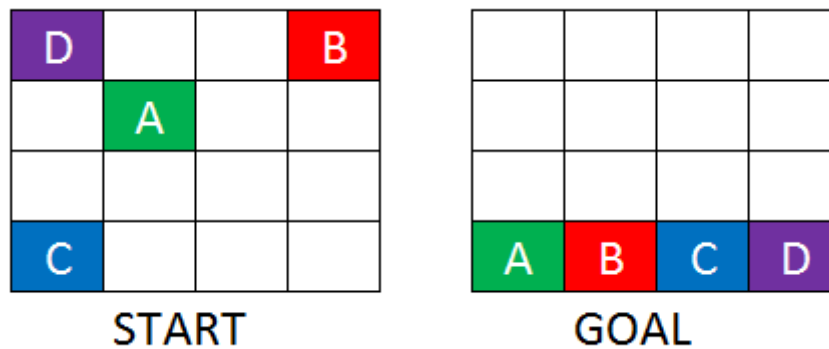
0.0 Points

Which of the following Search Algorithms are complete?

- ☒ A. A*
- ☒ B. Breadth First Search
- ☐ C. Greedy Best-First Search
- ☐ D. Depth First Search
- ☒ E. Uniform Cost Search

Question 18 of 33

0.0 Points



In the tile problem attached (manhattan_problem.png), what is the Manhattan Distance to get from the Start to the Goal State if each tile can only move in horizontal or vertical distances of 1?

Question 19 of 33

0.0 Points

In the tile problem attached (manhattan_problem.png), does Manhattan Distance constitute an admissible heuristic?

D			B
	A		
C			

START

A	B	C	D

GOAL

☒ True

☐ False

[Reset Selection](#)

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