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## Q9: Short Answer: Heuristics

### Problem 9: Short Answer: Heuristics

Let  $h_1(s)$  be an admissible  $A^*$  heuristic. Let  $h_2(s) = 2 h_1(s)$ . Mark whether each of the following statements is true or false.

#### Part 1

0.0/2.0 points (ungraded)

The solution found by  $A^*$  tree search with  $h_2$  is guaranteed to be an optimal solution.

☐ True

☒ False ✓

Submit

You have used 0 of 1 attempt

**i** Answers are displayed within the problem

#### Part 2

0.0/2.0 points (ungraded)

The solution found by  $A^*$  tree search with  $h_2$  is guaranteed to have a cost at most twice as much as the optimal path.

☒ True ✓

Typesetting math: 72%

☐ False

Submit

You have used 0 of 1 attempt

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**i** Answers are displayed within the problem

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### Part 3

0.0/2.0 points (ungraded)

The solution found by  $(A^*)$  graph search with  $(h_2)$  is guaranteed to be an optimal solution.

☐ True

☒ False ✓

Submit

You have used 0 of 1 attempt

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**i** Answers are displayed within the problem

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