



[Course](#) > [Week 4...](#) > [Lesson...](#) > QQ5

QQ5

QQ5

0 points possible (ungraded)

Which of the following statements are true concerning the Traveling Salesman Problem?
(You may check more than one choice)

- ☐ a) Once the 2-Opt heuristic finishes, the solution is guaranteed to be optimal
- ☒ b) Opportunities for a "swap" of arcs tend to be where arcs cross in the tour ✓
- ☐ c) The 2-Opt heuristic is a construction algorithm.
- ☒ d) The 2-Opt heuristic is an improvement algorithm. ✓
- ☐ e) If N is the number of nodes in the network, then there will be $(N-1)/2$ potential swaps



Explanation

The correct answers are b and d.

- a) False. It will be better, but is not guaranteed to be optimal.
- b) True. These are obvious candidates for swapping.
- c) False. The heuristic works on an existing tour, so it is an improvement algorithm
- d) True. Since this is the opposite of (c)!
- e) False. I just made this up. It is nonsense.

Submit

You have used 2 of 3 attempts

 Answers are displayed within the problem

Questions, comments and suggestions about this section

If you have any questions, comments or suggestions about this section, please use the "Add a Post" button in the discussion forum below. Your post will be indexed in the right category and it will be easier for the staff to answer it!

If you have a question, classify your post as a "question" (instead of "discussion"), since we try to review those post first.

Discussion

[Hide Discussion](#)

Topic: Week 4 / Lesson 1, Quick Question 5

[Add a Post](#)

Show all posts ▼

by recent activity ▼

There are no posts in this topic yet.

✕

© All Rights Reserved