

# TSP 8 Heuristique ChatGPT

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## Data

| TSP8/? | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |   |
|--------|----|----|----|----|----|----|----|----|---|
| 1      | 0  | 12 | 3  | 23 | 1  | 5  | 32 | 56 | 1 |
| 2      | 12 | 0  | 9  | 18 | 3  | 41 | 45 | 5  | 2 |
| 3      | 3  | 9  | 0  | 89 | 56 | 21 | 12 | 49 | 3 |
| 4      | 23 | 18 | 89 | 0  | 87 | 46 | 75 | 17 | 4 |
| 5      | 1  | 3  | 56 | 87 | 0  | 55 | 22 | 86 | 5 |
| 6      | 5  | 41 | 21 | 46 | 55 | 0  | 21 | 76 | 6 |
| 7      | 32 | 45 | 12 | 75 | 22 | 21 | 0  | 11 | 7 |
| 8      | 56 | 5  | 49 | 17 | 86 | 76 | 11 | 0  | 8 |
|        | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |   |

"Cities, ""Distance (km)"""

1-2,12

1-3,3

1-4,23

1-5,1

1-6,5

1-7,32

1-8,56

2-3,9

2-4,18

2-5,3

2-6,41

2-7,45

2-8,5

3-4,89

3-5,56

3-6,21

3-7,12

3-8,49

4-5,87

4-6,46

4-7,75

4-8,17

5-6,55

5-7,22

5-8,86

6-7,21

6-8,76

7-8,11

## Solution ChatGPT

Got it — I computed the **closed** tour (includes the return leg to the start, start fixed at City 1).

**Shortest closed TSP tour (visit each city once, then return to City 1):**

1. City 1
2. City 5
3. City 2
4. City 3
5. City 6
6. City 7
7. City 8
8. City 4
9. City 1 (return)

**Total closed-tour distance: 106 km**

I saved the tour as a CSV you can download here:

[Download the closed-tour CSV](#)

Notes / next options:

- This solution fixed the start at **City 1** to avoid equivalent cyclic permutations. If you want the best tour allowing any start (canonical minimal cycle) I can produce that as well.
- If you'd like the step-by-step leg distances or the full distance matrix shown, I can provide them. Which would you like next?

[https://chatgpt.com/s/t\\_691e3db84c44819183ebdf2937b2d677](https://chatgpt.com/s/t_691e3db84c44819183ebdf2937b2d677)

<https://chatgpt.com/share/691e3e75-2d6c-8000-8d27-60c4afce7cdd>

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