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The Virtual Learning Environment for Computer Programming

# Treasures in a map (2)

P60796\_en

Write a program that, given a map with treasures and obstacles, computes the distance from a given initial position to the nearest accessible treasure. The allowed movements are horizontal or vertical, but not diagonal.

#### Input

Input begins with the number of rows n > 0 and the number of columns m > 0 of the map. Follow n rows with m characters each. A dot indicates an empty position, an 'x' indicates an obstacle, and a 't' indicates a treasure. Finally, two numbers r and c indicate the initial row and column (both of them starting at 1) where we must start looking for treasures. You can assume that r is between 1 and n, that c is between 1 and m, and that the initial position is always empty.

## Output

Print the minimum number of steps to reach a treasure strating from the initial position. If no treasure is accessible, tell so.

# Sample input 1

# Sample output 1

7 6 ..t...
..XXX.
.....
tX..X.
.X..Xt
.XX...
.tx..X5 3

minimum distance: 4

#### Sample input 2

## Sample output 2

```
4 10 ..t...X...
.....X..t.
XXXXX.X...
.....X.t
```

no treasure can be reached

#### Sample input 3

#### Sample output 3

minimum distance: 19

# **Problem information**

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