
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 starting from the initial position. If no treasure is accessible, tell so.

Sample input 1

```
7 6
..t...
..XXX.
.....
tX..X.
.X..Xt
.XX...
..t...
5 3
```

Sample output 1

```
minimum distance: 4
```

Sample input 2

```
4 10
..t...X...
.....X..t.
XXXXX.X...
.....X.t
4 1
```

Sample output 2

```
no treasure can be reached
```

Sample input 3

```
5 7
.....
.XXXXXt
.X...Xt
.X.X.XX
...X.Xt
5 5
```

Sample output 3

```
minimum distance: 19
```

Problem information

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