DWITE '10 R4 #4 - Mountain Hiking

Time limit: 1.0s **Memory limit:** 64M

DWITE Online Computer Programming Contest, January 2011, Problem 4

Mountain hiking is a very adventurous, yet somewhat dangerous, pastime. On certain mountain ranges, the heights could vary sharply. An amateur hiker can move to an adjacent (left/right, up/down, but not diagonally) location only if the height difference with the current location is at most 1. Given a height map of a mountain range, determine the distance of the shortest viable path between the left and the right edges.

The input will contain 5 test cases. Each test case consists of a 10×10 map of digits 0 to 9, each digit representing the height of that location. A line of hyphens `----------` follows each test case for visual separation.

The output will contain 5 lines, the least number of steps to cross the mountain range in each case. If the hiker can't get across, output `IMPOSSIBLE` instead.

Notes: the hiker could start at any of the left-most positions. The steps counted are the transitions from one location to the next. Thus appearing in that very first location requires no steps.

Sample Input

```
9324892342
1334343293
3524523454
2634232043
0343259235
2454502352
4563589024
7354354256
9343221234
2653560343
----------
```

Sample Output

```
11
```

Problem Resource: DWITE