

Question 1

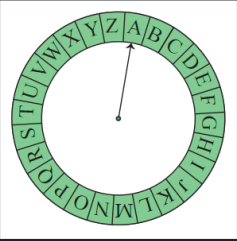
Whiteboard 1

Question 2

Question 3

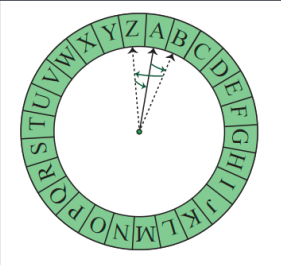
Task Description

A company has invented a new type of printing technology—a circular printer that looks like this:



It is a circular printer wheel with the letters A through Z in sequence. It wraps so A and Z are adjacent. The printer has a pointer that is initially at 'A'. Moving from any character to any adjacent character takes 1 second. It can move in either direction. Given a string of letters, what is the minimum time needed to print the string? (Note: Assume that printing does not take any time. Only consider the time it takes for the pointer to move.)

Example
 $s = \text{"BZA"}$



Total time to print "BZA" = Interviewer Guidelines

First, move the pointer from 'A' to 'B' (1 second), then from 'B' to 'Z' (2 seconds), and finally from 'Z' to 'A' (1 second). So the minimum time needed to print "BZA" is 4 seconds.

Function Description
Complete the function `getTime` in the editor below.

`getTime` has the following parameter:

- `string s`: the string of characters that need to be printed

Returns:

- `int`: the minimum number of seconds needed to print `s`

Constraints

- $1 \leq \text{length of } s \leq 10^5$

Input Format For Custom Testing

Sample Case 0

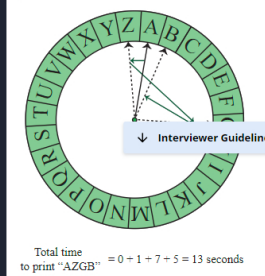
Sample Input For Custom Testing

STDIN	Function
AZGB	<code>s = "AZGB"</code>

Sample Output

13

Explanation



Total time to print "AZGB" = $0 + 1 + 7 + 5 = 13$ seconds

Initially, the pointer is at 'A', so there is no need to move it for the first character. First, move the pointer from 'A' to 'Z' (1 second), then from 'Z' to 'G' (7 seconds), and finally from 'G' to 'B' (5 seconds). Therefore, the total time is $1 + 7 + 5 = 13$.

Sample Case 1


Sample Input For Custom Testing

ZNMD

Sample Output

23

Explanation



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/* Complete the 'getTime' function below. */
* The function is expected to return a LONG_INTEGER.
* The function accepts STRING s as parameter.
*/

public static long getTime(String s) {
 // Write your code here
 int cost = 0;
 int curr = 'A';
 for (int i = 0; i < s.length(); i++) {
 if (curr == s.charAt(i)) {
 continue;
 }
 else {
 cost += Math.min(
 Math.abs(curr - s.charAt(i)),
 26 - Math.abs(curr - s.charAt(i))
);
 }
 curr = s.charAt(i);
 }
}

Java 8

Line: 41 Col: 6

Chat Window

Run Tests

Run Code

Input

Output

Congratulations! All 15 testcases have been passed.

Test case 0

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Test case 7

Compiler Message

Correct Answer

Input (stdin)

1 AZGB

Your Output (stdout)

1 13

Expected Output

1 13

SCORECARD



Total time
to print "ZNM D" = $1 + 12 + 1 + 9 = 23$ seconds

First, move the pointer from 'A' to 'Z' (1 second), then from 'Z' to 'N' (12 seconds), then from 'N' to 'M' (1 second), and finally from 'M' to 'D' (9 seconds). The total time is $1 + 12 + 1 + 9 = 23$.

Interviewer Guidelines

 Private

Interviewer guidelines are a set of hints and follow up questions to help you guide and evaluate the candidate.

► Hint 1

► Hint 2

► Solution

► Complexity Analysis

► Follow up Question