Reduce given number to 1

locked

- Problem
- Submissions
- Leaderboard
- Discussions

A number ***n*** is given, and your goal is to reduce it to 1 in minimum number of steps possible.

In one step, you can only perform one of the following operations.

1.add 1

2.subtract 1

3.divide by 2 if the number is even

Input Format

one number ***n*** is given

Constraints

1 <=***n*** <= 1000000000000000000

Output Format

Number of steps needed to reduce given number to 1 using valid steps (as specified in problem statement)

Sample Input 0

```
4
```

Sample Output 0

```
2
```

Sample Input 1

```
5
```

Sample Output 1

```
3
```

Sample Input 2

```
6
```

Sample Output 2

```
3
```

Sample Input 3

```
7
```

Sample Output 3

```
4
```

Submissions:

154

Max Score:

10

Difficulty:

Hard

Rate This Challenge:

Download problem statement
Download all test cases
Suggest Edits
Collapse

Admin Options

Edit Challenge

View Submissions

```
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;


int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
```

```
12
}
13
```

Line: 1 Col: 1