

397. Integer Replacement

Question Editorial Solution

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- Total Accepted: **7525**
- Total Submissions: **26967**
- Difficulty: **Medium**
- Contributors: **Admin**

Given a positive integer n and you can do operations as follow:

1. If n is even, replace n with $n/2$.
2. If n is odd, you can replace n with either $n + 1$ or $n - 1$.

Input:

8

Output:

3

Explanation:

8 -> 4 -> 2 -> 1

```
class Solution {
public:
    int replace(long n,int step){
        if(n==1) return step;

        if(n%2==0) return replace(n/2,++step);
        else return min(replace(n+1,step+1),replace(n-1,step+1));
    }

    int integerReplacement(int n) {
        return replace(n,0);
    }
};
```