

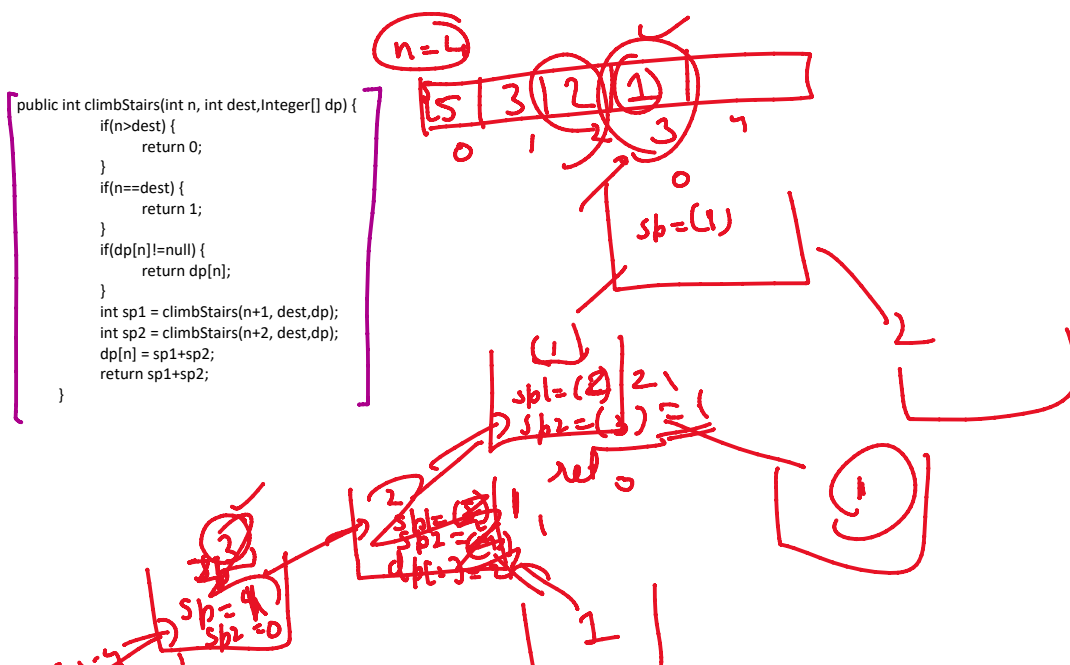
$cost(0)$ $cost(1)$ $cost(2)$ ~~arr~~ $cost(3)$ $cost(4)$ $dp[i] \rightarrow \underline{cost(i)}$

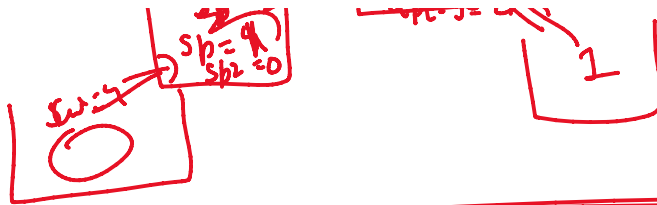
```

public int climbStairs(int n, int dest, Integer[] dp) {
    if(n > dest) {
        return 0;
    }
    if(n == dest) {
        return 1;
    }
    if(dp[n] != null) {
        return dp[n];
    }
    int sp1 = climbStairs(n+1, dest, dp);
    int sp2 = climbStairs(n+2, dest, dp);
    dp[n] = sp1 + sp2;
    return dp[n];
}

```

From <<https://leetcode.com/problems/climbing-stairs/submissions/958161408/>>





Given a positive number N your task is to bring this number to 1 by performing only a set of operations
 . The operations can be either dividing the number by 2 only if the number is even or you can add or subtract 1 only if the number is odd.

More Precisely:

1) $N=N/2$ (if N is even)

2) $N=N+1/ N=N-1$ (if N is odd)

Your task is to minimize these number of operations.

Input Format

A single positive integer N

Constraints

$n \leq 100000$

Output Format

Print on a single line the minimum number of steps needed to reach 1 by performing the given operations.

Sample Input

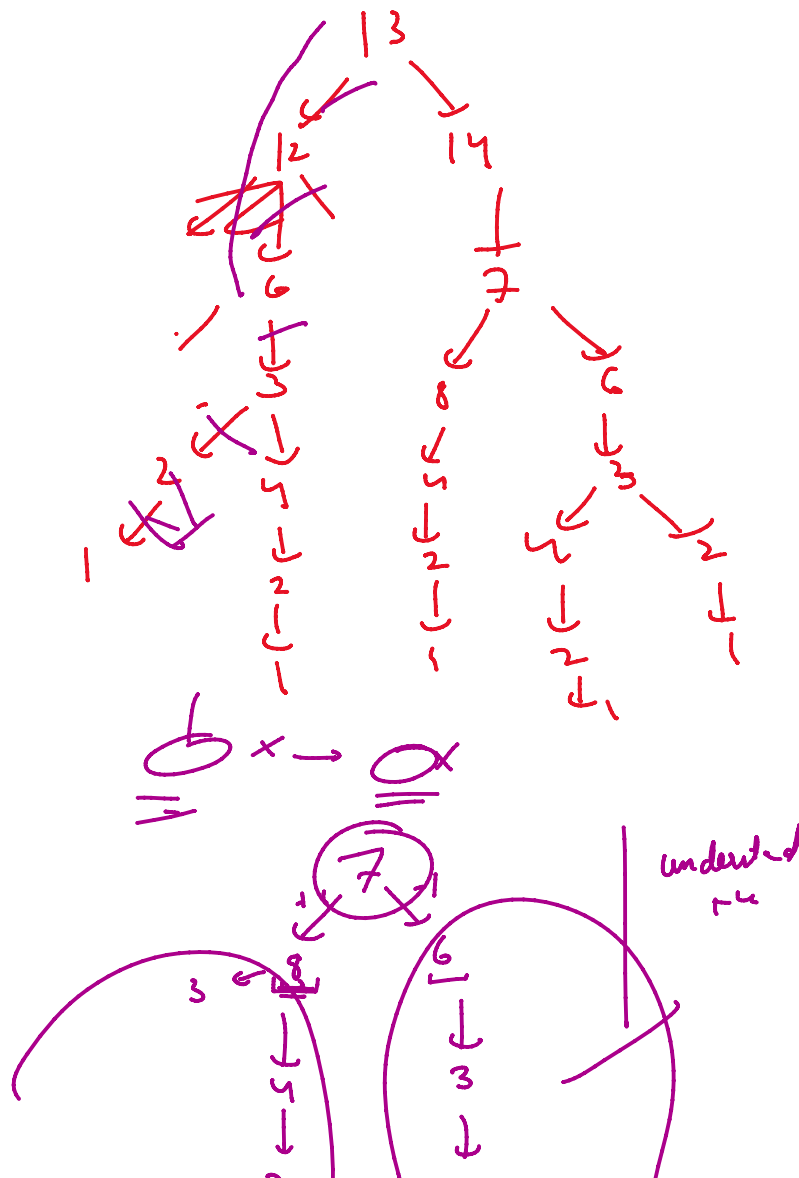
8

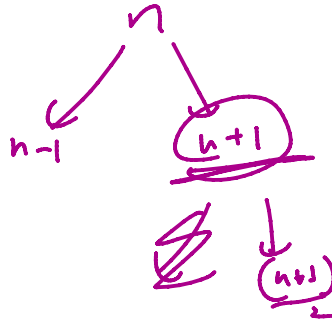
Sample Output

3

Explanation

$8 \rightarrow 4 \rightarrow 2 \rightarrow 1$





BU \rightarrow Convert BP to smaller prob such that you can use your DP, ~~start~~ data struc again

2 A + going left

$dp[A][idx] \rightarrow sol(A, idx)$



log C. Sub seq.

text1 = "abcde", text2 = "ace"

X

X