

Leetcode Problem 1. (Easy)

Climbing Stairs

You are climbing a staircase. It takes n steps to reach the top.

Each time you can either climb 1 or 2 steps. In how many distinct ways can you climb to the top?

Example 1:

Input: $n = 2$

Output: 2

Explanation: There are two ways to climb to the top.

1. 1 step + 1 step
2. 2 steps

Example 2:

Input: $n = 3$

Output: 3

Explanation: There are three ways to climb to the top.

1. 1 step + 1 step + 1 step
2. 1 step + 2 steps
3. 2 steps + 1 step

Constraints:

- $1 \leq n \leq 45$

Link: <https://leetcode.com/problems/climbing-stairs/>

```
class Solution {
    public int climbStairs(int n) {

        if (n == 1) {
            return 1;
        }
        int[] dp = new int[n + 1];
        dp[0] = 1;
        dp[1] = 1;
        for (int i = 2; i <= n; i++) {
            dp[i] = dp[i - 1] + dp[i - 2];
        }
        return dp[n];
    }
}
```

}

LeetCode

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Sakib Rahman

Apr 20, 2023 19:05

Java

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Console Run Submit