**[70. Climbing Stairs](https://leetcode.com/problems/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?

C++

class Solution {

public:

int climbStairs(int n) {

// dp[i] := the number of ways to climb to the i-th stair

vector<int> dp(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];

}

};