

Climbing Stairs

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The Young Talented Guy **Mr. Ayush** wants to **climb a staircase**. It takes  $n$  steps to reach the top. Each time he can either climb 1 or 2 steps. In how many distinct ways can Ayush can reach to the top?

**Input:**

first line contains 1 value, the number of Stairs

**Output:**

The total number ways that Ayush can climb  $n$  stairs.

**Eg:****Input**

2

**Output**

2

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

1. 1 step + 1 step
2. 2 steps

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solution.c

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```
#include
int solution(int i)
{
    //write your code here
    if(i<3){
        return i;
    }
    else{
        return solution(i-1) + solution(i-2); // counting the number of ways
    }
}

//Your program will be evaluated by this main method and several test cases.
int main()
{
    int N,i;
    scanf("%d",&N); // giving input as N
    int sum =solution(N); // calling funtion
```

```
    printf("%d",sum);  
}
```

Test Cases

Test Cases	Status
Test Case 1	Pass