

**Started on** Friday, 3 October 2025, 8:26 PM

**State** Finished

**Completed on** Friday, 3 October 2025, 8:54 PM

**Time taken** 28 mins 20 secs

**Grade** 10.00 out of 10.00 (100%)

**Question 1** | Correct Mark 10.00 out of 10.00

### Playing with Numbers:

Ram and Sita are playing with numbers by giving puzzles to each other. Now it was Ram term, so he gave Sita a positive integer 'n' and two numbers 1 and 3. He asked her to find the possible ways by which the number n can be represented using 1 and 3. Write any efficient algorithm to find the possible ways.

#### Example 1:

**Input:** 6

**Output:** 6

**Explanation:** There are 6 ways to represent number with 1 and 3

1+1+1+1+1+1

3+3

1+1+1+3

1+1+3+1

1+3+1+1

3+1+1+1

#### Input Format

First Line contains the number n

#### Output Format

**Print:** The number of possible ways 'n' can be represented using 1 and 3

Sample Input

6

Sample Output

6

**Answer:** (penalty regime: 0 %)

```

1 #include<stdio.h>
2
3 long int count(int n)
4 {
5     long int result[n+1];
6     result[0]=1;
7     result[1]=1;
8     result[2]=1;
9     for(int i=3;i<=n;i++)
10         result[i] = result[i-1]+result[i-3];
11     return result[n];
12 }
13 int main()
14 {
15     int n;
16     scanf("%d",&n);
17     long int c = count(n);
18     printf("%ld",c);
19 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	6	6	6	✓
✓	25	8641	8641	✓
✓	100	24382819596721629	24382819596721629	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.