



Started on	Wednesday, 8 October 2025, 3:05 PM
State	Finished
Completed on	Wednesday, 8 October 2025, 3:11 PM
Time taken	5 mins 57 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 6 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 long countWays(int n) {
4 |     long long dp[n + 1];
5 |     dp[0] = 1;
6 |
7 |     for (int i = 1; i <= n; i++) {
8 |         dp[i] = 0;
9 |         if (i - 1 >= 0)
10 |             dp[i] += dp[i - 1];
11 |         if (i - 3 >= 0)
12 |             dp[i] += dp[i - 3];
13 |     }
14 |
15 |     return dp[n];
16 | }
17 |
18 | int main() {
19 |     int n;
20 |     scanf("%d", &n);
21 |     printf("%lld\n", countWays(n));
22 |     return 0;
23 | }
24 |

```

	Input	Expected	Got	
✓	6	6	6	✓

	Input	Expected	Got	
✓	25	8641	8641	✓
✓	100	24382819596721629	24382819596721629	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

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