



Started on	Wednesday, 29 October 2025, 8:53 PM
State	Finished
Completed on	Wednesday, 29 October 2025, 9:01 PM
Time taken	8 mins 36 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  int main() {
3      int n;
4      scanf("%d", &n);
5
6      if (n < 0) {
7          printf("0\n");
8          return 0;
9      }
10     if (n <= 2) {
11         printf("1\n");
12         return 0;
13     }
14     unsigned long long dp[n + 1];
15     dp[0] = 1;
16     dp[1] = 1;
17     dp[2] = 1;
18     for (int i = 3; i <= n; i++) {
19         dp[i] = dp[i - 1] + dp[i - 3];
20     }
21     printf("%llu\n", dp[n]);
22     return 0;
23 }
```

	Input	Expected	Got	
✓	6	6	6	✓
✓	25	8641	8641	✓
✓	100	24382819596721629	24382819596721629	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

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