

VARSHINI S 2024-CSEV2

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 turn, 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 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.

[Back to Course](#)