

[Dashboard](#) / [My courses](#) / [CS23331-DAA-2023-CS](#) / [Dynamic Programming](#) / [1-DP-Playing with Numbers](#)

Status	Finished
Started	Saturday, 12 April 2025, 1:06 PM
Completed	Saturday, 12 April 2025, 1:09 PM
Duration	2 mins 13 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  int main() {
4      int n;
5      scanf("%d", &n);
6      unsigned long long dp[n + 1];
7      dp[0] = 1;
8      for (int i = 1; i <= n; i++) {
9          dp[i] = dp[i - 1];
10         if (i >= 3)
11             dp[i] += dp[i - 3];
12     }
13     printf("%llu\n", dp[n]);
14     return 0;
15 }
16

```

	Input	Expected	Got	
✓	6	6	6	✓
✓	25	8641	8641	✓

	Input	Expected	Got	
✓	100	24382819596721629	24382819596721629	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

◀ 5-G-Product of Array elements-Minimum

Jump to...

2-DP-Playing with chessboard ▶