Started on	Monday, 28 October 2024, 1:47 PM
State	Finished
Completed on	Monday, 28 October 2024, 2:06 PM
Time taken	18 mins 10 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 %)

```c
 1  #include <stdio.h>
 2
 3  long long countWays(int n) {
 4      long long dp[n];
 5      dp[0] = 1;
 6
 7      for (int i = 1; i <= n; i++) {
 8          dp[i] = 0;
 9          dp[i] += dp[i - 1];
10          if (i >= 3) {
11              dp[i] += dp[i - 3];
12          }
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.

◄ 5-Implementation of Quick Sort

Jump to...

2-DP-Playing with chessboard ►