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LACS-PST-S660 ProgramID- 11166 CodeVita



SkillRack

Uncertain Steps

Codu is trying to go down stairs from his building to ground floor. He can go 3 ways.

- 1) Walk 1 step at a time.
- 2) Extend his legs and go 2 steps at a time.
- 3) Jump down 3 steps at a time.

Given **N** steps, calculate the number of possible ways **W** to reach the ground floor, provided he can jump 3 steps. That is, he can jump down 3 steps only once, but at any time, if he wishes, while walking down the stairs.

Note: As the number of ways W can be huge, print W modulo 100000007.

Boundary Condition(s):

 $1 <= N <= 10^6$

Input Format:

The first line contains N.

Output Format:

The first line contains W.

Expample Input/Output 1:

Input:

4

Output:

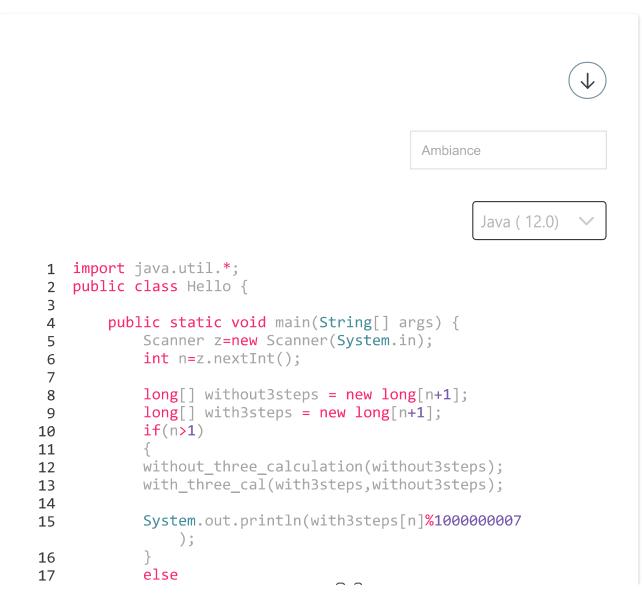
7

```
Explanation:
The 7 possible ways are given below.
1, 1, 1, 1
1, 1, 2
1, 2, 1
2, 1, 1
2, 2
1, 3
3, 1

Expample Input/Output 2: Input:
5

Output:
13

Max Execution Time Limit: 1000 millisecs
```



```
System.out.println((1));
18
19
         }
20
21
         public static void with_three_cal(long[] a
22
              ,long[] b)
23
              int step_count=0;
24
25
              int index = 0;
              int len = a.length;
26
27
             while(step_count++<3)</pre>
28
                 a[index] = b[index];
29
                 index++;
30
31
32
             for(int i=index;i<len;i++)</pre>
33
34
                 a[i] = a[i-1] + a[i-2] + b[i-3];
35
36
37
         }
38
39
40
         public static void without_three_calculation
              (long[] a)
41
              a[0] = 1; // only one way 0->1
42
              a[1] = 1; // 0 -> 1 -> 1 | 0 -> 2
43
44
             int len = a.length;
             for(int i=2;i<len;i++)</pre>
45
46
47
                 a[i]=a[i-1]+a[i-2];
48
49
50
51
312321205037@stjosephsengg
```

11 Private (Hidden) Test Cases Failed.

5 Passed
11 Failed