Roy and Little Mario

Submissions Attempted by: **375** | Solved by: **203** | Partially Solved by: **39** | ★★★☆☆

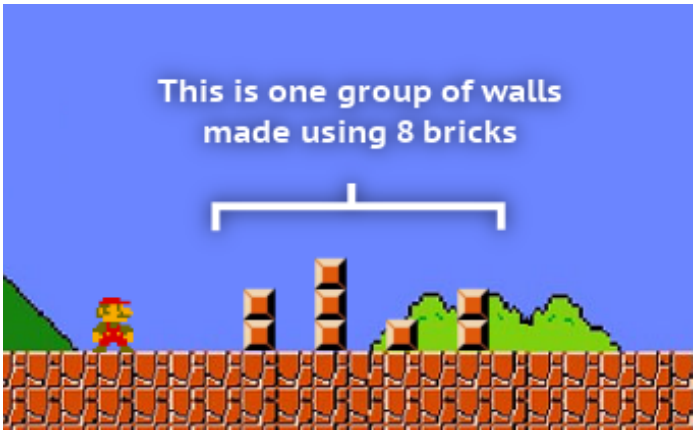
Ad-Hoc Algorithms Combinatorics Dynamic Programming Medium Edit

Roy has played a lot of Mario that he got bored of playing it again and again. So now he wants to design a stage of Mario game.

Right now he is simply designing a group of walls using bricks that little Mario has to cross over. Little Mario cannot jump more than **3** bricks' height, so Roy cannot create a wall of height more than **3**.

Roy has **N** number of bricks. Roy wants to make a group of walls such that height of no single wall exceeds **3**.

For example if N = 8, one of the group of walls can be as follows:



Now Roy wonders how many different groups of walls can he generate for a given number of bricks. (See **Sample Test Case Explanation** for clarification)

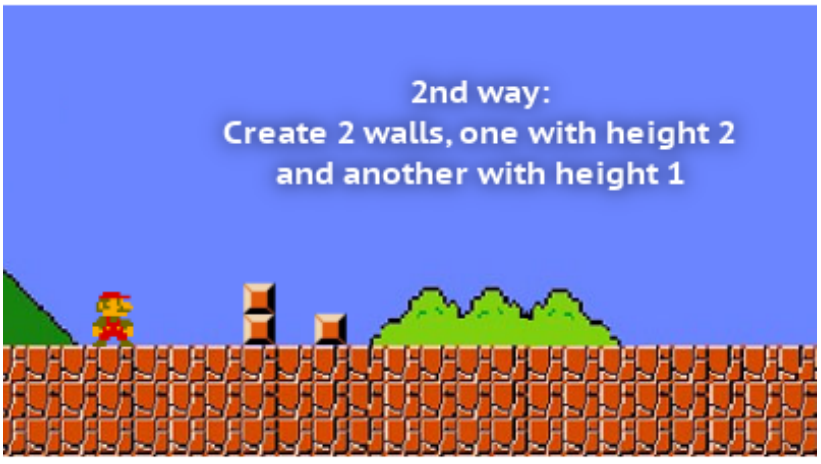
Input:
First line contains integer **T**, number of Test Cases. Next **T** lines each will contain integer **N**, number of bricks Roy has.

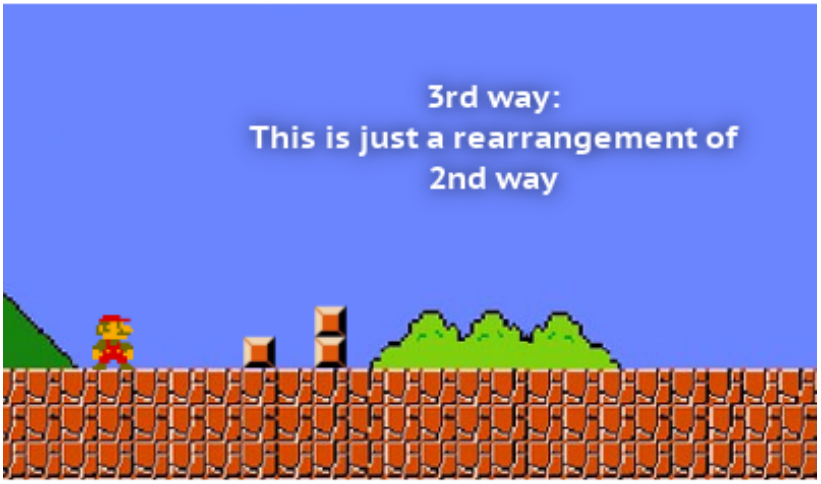
Output:
Print an integer in new line for each test case, number of different groups of walls.

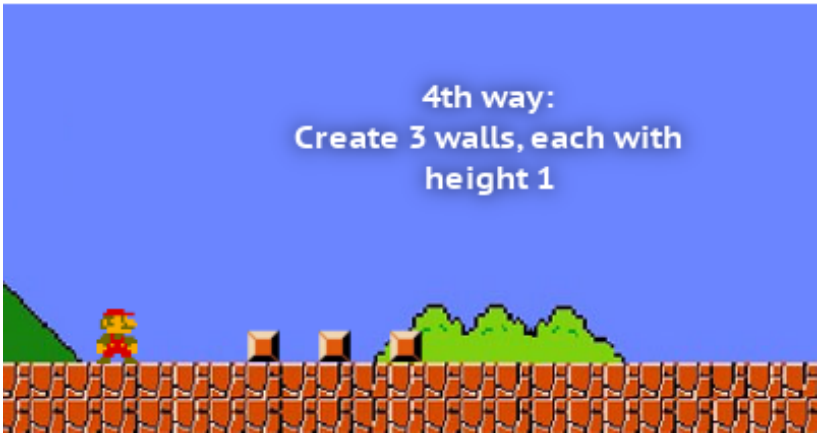
Since answer can be very large, print it modulo **1000000007**

Constraints:
1<=**T**<=10
1<=**N**<=100000

Sample Test Case Explanation: For N = 3







1

LIVE EVENTS

Sample Input (Plaintext Link)

```
1
3
```

Sample Output (Plaintext Link)

4

Time Limit: 2 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes.

Allowed languages: C, CPP, CLOJURE, CSHARP, GO, HASKELL, JAVA, JAVASCRIPT, JAVASCRIPT_NODE, LISP, OBJECTIVEC, PASCAL, PERL, PHP, PYTHON, RUBY, R, RUST, SCALA

Problem Author: Ravi Ojha

C ▼ Upload file: Choose File No file chosen Save

```c
#include <stdio.h>

int main()
{
    printf("Hello World!\n");
    return 0;
}

```

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Rajan Ka...		1.0059	C++
Rajan Ka...		1.0058	C++
Rajan Ka...		1.0062	C++
rit20130...		1.0059	C
rit20130...		1.0058	C
rit20130...		1.0058	C

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TRENDING NOTES

Number Theory - III
written by Boris Sokolov

Exact String Matching Algorithms
written by Alei Reyes

Binary Indexed Tree or Fenwick Tree
written by Chandan Mittal

Small tricks in for loop
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Strings And String Functions
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