

Project Euler #28: Number spiral diagonals



This problem is a programming version of [Problem 28](#) from [projecteuler.net](#)

Starting with the number 1 and moving to the right in a clockwise direction a 5 by 5 spiral is formed as follows:

21	22	23	24	25
20	7	8	9	10
19	6	1	2	11
18	5	4	3	12
17	16	15	14	13

It can be verified that the sum of the numbers on the diagonals is **101**.

What is the sum of the numbers on the diagonals in a $N \times N$, (N is odd) spiral formed in the same way?

As the sum will be huge you have to print the result mod $(10^9 + 7)$

Input Format

The first line contains an integer T , i.e., number of test cases.

Next T lines will contain an integer N .

Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq N < 10^{18}, N \text{ is odd}$$

Output Format

Print the values corresponding to each test case.

Sample Input

```
2
3
5
```

Sample Output

```
25
101
```