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:

$$
\begin{array}{ccccc}
\mathbf{21} & 22 & 23 & 24 & \mathbf{25} \\
20 & \mathbf{7} & 8 & \mathbf{9} & 10 \\
19 & 6 & \mathbf{1} & 2 & 11 \\
18 & \mathbf{5} & 4 & \mathbf{3} & 12 \\
\mathbf{17} & 16 & 15 & 14 & \mathbf{13}
\end{array}
$$

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.
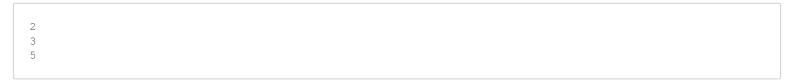Next T lines will contain an integer N.

Constraints

$$1 \leq T \leq 10^5$$
$$1 \leq N < 10^{18}, \text{N is odd}$$

Output Format

Print the values corresponding to each test case.

Sample Input

```
2
3
5
```

Sample Output

```
25
101
```