Huge Fibonacci

Overview

One of the most famous mathematical sequences is the Fibonacci sequence. It is defined recursively like this:

Let's say that **F(n)** is **n**-th number of fibonacci sequence.
Then, we define **F(n)** as this: **F(0) = 0**, **F(1) = 1** and **F(n) = F(n-1) + F(n-2)** for any n > 1.

You have been asked to write a program to compute n-th number of the fibonacci sequence. But, since the fibonacci sequence would output incredibly huge numbers for large n, you are asked to output only last 6 digits of the n-th number of the fibonacci sequence.

Input

On first line of input you are given number **T** (1 <= **T** <= 1000), the number of test cases to follow. Then, for each of **T** test cases you are given number **N** (0 <= **N** <= 1000000).

Output

For each number **N** from test cases, you are asked to output the last 6 digits of Nth fibonacci number. If the first of these digits is 0, it needs to be printed out too.

Sample input

```
6
3
5
94
87
35
44
```

Sample output

```
000002
000005
223167
612258
227465
408733
```