Fibonacci Adventure

Alice, Bob, and Charlie are on an adventurous journey through a mysterious land filled with ancient puzzles. As they travel, they stumble upon a curious discovery: a sequence of numbers that seem to follow a mystical pattern.

The sequence is defined as the **Fibonacci series**:

- F(0) = 0
- F(1) = 1
- F(n) = F(n-1) + F(n-2)

Alice, being the curious one, wonders what will be the n-th number in this sequence. Can you help her find out?

Input Format

- First line contains t number of test cases. For each test case their is a single line which contains a large number n.

Constraints

- 40 <= n <= 10^18
- 0 < t <= 10

Output Format

For each test case, print the n-th number in the Fibonacci series. Since the result can be very large, print only the last 9 digits of this number.

Sample Input 0

```
7
41
79
60
97
77
51
68
```

Sample Output 0

```
165580141
24676221
8755920
848422977
700884757
365011074
460248141
```

Sample Input 1

```
8
65
88
56
94
50
85
52
74
```

Sample Output 1

```
680177565
366101931
851433717
868223167
586269025
911122585
951280099
544928657
```