

Ada and Digits

As you might already know, Ada the Ladybug is a farmer and she also loves math. One day, as farming is sometimes very notorious work, she was thinking about numbers. She was wondering about how many numbers there are having exactly same digital sum as digital product.

She have found out some answers for small **N** (sum & product), but then the numbers started getting big. Can you help her to find out the answers for bigger sums to satisfy her mind?

Input

The first line contains a single integer $1 \leq T \leq 100$, number of test-cases.

Each of the next line contains a single number $1 \leq N \leq 3 \cdot 10^5$, the required sum (and so the required product).

Output

For each test-case, print the number of existing numbers. Since this number might be pretty huge, output it modulo 10^9+7 (1000000007).

Example Input

```
8
1
2
3
7
8
12
16
144
```

Example Output

```
1
1
1
1
23
240
1091
243368058
```