

Problem C – Credit card PIN number.

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Febo has a new credit card and must choose a PIN. To create his new PIN, it is necessary to satisfy two conditions:

1. The number must have exactly K digits.
2. Two (or more) equal digits should not be next to each other.

For example, if the PIN should have $K = 4$ digits, then Febo could select the PIN 1234, but, not the PIN 1123 as two digits 1 are next to each other.

Can you count the number of valid PINs from which Febo can choose the PIN for his new credit card?

Input

The first line will have a natural number T such that $1 \leq T \leq 1000$, and denotes the number of cases you will receive. Each of the next T lines contains an integer K , the number of digits Febo's PIN should have ($2 \leq K \leq 10^6$).

Output

For each test case in the input, print a line with a single integer, the number of valid PINs from which Febo can choose the PIN for his new credit card. Since the answer could be very big, print it modulo $10^9 + 7$.

Sample input 1	Sample output 1
3	7290
4	867843772
11	57223964
400200	