

Smallest Number

Your Task is extremely simple, for a given number N you have to find the smallest number which is divisible by all numbers from 1 to N without leaving any remainder, As number can be very large print the answer modulo 1000000007.

Input

Input starts with a positive integer $T < 501$ in a single line, then T lines follow. Each of the T lines contains one positive integer $N < 10001$.

Output

For every N print the desired number.

Example

Input:

1
5

Output:

60