
11. Threes and Zeroes

Program Name: Threes.java

Input File: threes.dat

Given a positive integer less than 50, there is a multiple of that integer that can be written using only the digits 3 and 0. For example, 300 is the smallest multiple of 4 that contains only the digits 3 and 0.

You are to write a program that will find the smallest multiple of a given integer x that contains only the digits 3 and 0.

Input

The first line of input will contain a single integer n that indicates the number of test cases to follow. Each of the following n lines will contain a single integer x ($3 < x < 50$).

Output

For each number x input, you will print on a single line the smallest multiple of x that contains only the digits 3 and 0.

Example Input File

```
4
4
5
12
38
```

Example Output to Screen

```
300
30
300
330030
```