

## 4342 Lucky Numbers

In some Asian countries, 8 and 6 are considered lucky digits. Any number containing only 8s and 6s is considered lucky number, e.g. 6, 8, 66, 668, 88, 886 . . .

Nguyen is a student who likes mathematics very much. Nguyen likes lucky numbers but only of the form

$$S = 8 \dots 86 \dots 6$$

where  $S$  has at least one digit and the number of 8s or 6s can be zero. Examples of  $S$  are 8, 88, 6, 66, 86, 886, 8866 . . .

Given a positive integer  $X$  ( $1 < X < 10000$ ), Nguyen wants to find the smallest lucky number  $S$  which has at most 200 digits and is divisible by  $X$ .

Your task is to write a program to find that number for Nguyen.

### Input

The input file consists of several data sets. The first line of the input file contains the number of data sets which is a positive integer and is not bigger than 20. The following lines describe the data sets.

For each data test, there is one single line containing the integer  $X$ .

### Output

For each data test, write in one line the smallest lucky number  $S$  which is divisible by  $X$ . In case there is no such a number which has at most 200 digits, write '-1'.

### Sample Input

```
4
6
8
43
5
```

### Sample Output

```
6
8
86
-1
```