

1472 - Lucky Sequence Again

Description

Lucky Numbers are those numbers made up of prime digits (2, 3, 5, 7) only . Lucky Numbers contain zero or more copy of these four digits. Lucky sequence is the sequence made of lucky numbers written in ascending order. Print the Nth number of the Lucky Sequence. The first 20 numbers of the lucky sequence will be 2, 3, 5, 7, 22, 23, 25, 27, 32, 33, 35, 37, 52, 53, 55, 57, 72, 73, 75, 77,

Input specification

The First line of the input file contains t which indicate the number of the test cases .Each of the following T (T <= 2000) lines contains an integer N (N <= 10^{10}).

Output specification

Output the nth element of the Lucky Sequence (one lucky number per line).

Sample input

```
3
1
3
10
```

Sample output

```
2
5
33
```

Hint(s)

Source

ITRIX 2011

Added by

ejaltuna

Caribbean Online Judge

Addition date	2011-10-11 17:43:29.0
Time limit (ms)	1000
Test limit (ms)	1000
Memory limit (kb)	65536
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	C C# C++ Java Pascal Perl PHP Python Ruby Text