

Lucky Sequence Again

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 n^{th} 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 Format

The First line of the input file contains t which indicate the number of the test cases .Each of the following 't' lines contains an integer 'n' .

Constraints

$t \leq 2000$

$n \leq 10^{10}$ (10 power 10)

Output Format

Output the n^{th} element of the Lucky Sequence (one lucky number per line)

Example

Sample Input:

```
4
1
3
10
18
```

Sample Output:

```
2
5
33
73
```