D. Print a 1337-string...

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

The subsequence is a sequence that can be derived from another sequence by deleting some elements without changing the order of the remaining elements.

You are given an integer n.

You have to find a sequence s consisting of digits $\{1, 3, 7\}$ such that it has exactly n subsequences equal to 1337.

For example, sequence 337133377 has 6 subsequences equal to 1337:

1. $337\underline{1}\underline{33}\underline{377}$ (you can remove the second and fifth characters);
2. $337\underline{1}\underline{333}\underline{77}$ (you can remove the third and fifth characters);
3. $337\underline{1}\underline{3333}\underline{7}$ (you can remove the fourth and fifth characters);
4. $337\underline{13}\underline{33}\underline{377}$ (you can remove the second and sixth characters);
5. $337\underline{13}\underline{333}\underline{7}$ (you can remove the third and sixth characters);
6. $337\underline{133}\underline{33}\underline{7}$ (you can remove the fourth and sixth characters).

Note that the length of the sequence s must not exceed 10^5.

You have to answer t independent queries.

Input

The first line contains one integer t ($1 \le t \le 10$) — the number of queries.

Next t lines contains a description of queries: the i-th line contains one integer n_i ($1 \le n_i \le 10^9$).

Output

For the i-th query print one string s_i ($1 \le |s_i| \le 10^5$) consisting of digits $\{1, 3, 7\}$. String s_i must have exactly n_i subsequences 1337. If there are multiple such strings, print any of them.

Example

input Copy

```
2
6
1
```

output Copy

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113337
1337
```