

Special Numbers (Reverse and Add)

Michael likes to *reverse and add* numbers. When he finds a number, he reverses its digits and adds it to the original number.

One day, when he was doing "reverse and add", he found that some numbers (*special numbers*) can be obtained from two distinct digit numbers. The number 121 is one of them. He can get it from 47 (2-digit) and 110 (3-digit). He tried to find many of these special numbers, but he could find only two numbers under 10000.

He wants to know the first 5,000 special numbers in ascending order. Can you help him ?

Input

This problem has no input data.

Output

Output the first 5,000 special numbers in ascending order. (One special number per one line.)

Example

Output:

```
121
1111
...
[4998 lines]
...
```

Information

Source Limit is 10 KB.