11185   Ternary

You will be given a decimal number. You will have to convert it to its ternary (Base 3) equivalent.

Input

The input file contains at most 100 lines of inputs. Each line contains a non-negative decimal integer N ($N < 1000000001$). Input is terminated by a line containing a negative value. This line should not be processed.

Output

For each line of input produce one line of output. This line contains the ternary equivalent of decimal value N.

Sample Input

```
10
100
1000
-1
```

Sample Output

```
101
10201
1101001
```