

The famous mathematician Hardy relates the following episode with the (now also famous) Indian mathematician Ramanujan:

*I remember once going to see him when he was ill at Putney. I had ridden in taxi cab number 1729 and remarked that the number seemed to me rather a dull one, and that I hoped it was not an unfavorable omen. "No," he replied, "it is a very interesting number; it is the smallest number expressible as the sum of two positive cubes in two different ways."*

Your objective is to print *cab numbers* in a given range,  $[n1; n1 + rg]$ , specified by its lower limit,  $n1$ , and the size of the interval,  $rg$ . A number is a *cab number* if it can be expressed as the sum of two positive cubes, in at least two different ways.

## Input

Input contains several test cases. For each test case, you are given two numbers in two rows, the lower limit  $n1$  and the range we are interested in,  $rg$ . The lower limit is between 1 and 1000000000 (1E+9). The range is between 1 and 100000. EOF indicates the end of the input.

## Output

For each test case, you should output a list of *cab numbers*, in the specified range. The numbers should be separated by newlines. If there is no cab number in the range, you should output one single line with the word 'None'.

## Sample Input

```
1000
20000
```

## Sample Output

```
1729
4104
13832
20683
```