

Given a positive integer  $N$  you will have to find two positive integers  $x$  and  $y$  such that:

$$N = x^3 - y^3$$

## Input

The input file contains at most 2500 lines of inputs. Each line contains a positive integer  $N$  ( $0 < N \leq 25 * 10^{12}$ ). Input is terminated by a line containing a single zero. This line should not be processed.

## Output

For each line of input produce one or more lines of output. Each of these lines contains two positive integers  $x$ ,  $y$  separated by a single space, such that  $N = x^3 - y^3$ . If there is no such integer values of  $x$  and  $y$  then produce the line 'No solution' instead. If there is more than one solution then output the one with smallest value of  $y$ .

## Sample Input

```
7
37
12
2299304209293
0
```

## Sample Output

```
2 1
4 3
No solution
47718 47379
```