

## 2275 Secret Numbers

Two natural numbers  $a$  and  $b$  are chosen ( $1 < a < b$ ). Person  $M$  is told the multiple of  $a$  and  $b$  ( $a * b$ ), and person  $S$  is told the sum of  $a$  and  $b$  ( $a + b$ ). The discussion between  $M$  and  $S$  goes like this:

M: I do not know the numbers  $a$  and  $b$ .

S: I do not know them either, but I knew you would not know them.

M: Now I know the numbers!

S: Now I know them, too!

### Input

The input is given in a text file. The input file contains pairs of natural numbers  $x$  and  $y$  ( $2 \leq x < y \leq 550$ ), one pair per line. The input is guaranteed to be correct.

### Output

For each pair  $x, y$ , find all pairs of  $a$  and  $b$ , such that  $x \leq a < b \leq y$  and that the given discussion is possible. Write these pairs in a single line, and finish that line with 'no more pairs.' if there are  $a$  and  $b$  found in the given range, or write simply 'no pairs.' if there are not.

Separate the numbers of a pair with a comma, terminate each pair with a semi-colon, and separate different pairs with a blank after the semi-colon, as shown in the example below.

### Sample Input

```
2 10
2 20
```

### Sample Output

```
no pairs.
4,13; no more pairs.
```