Arithmetic Progressions

An arithmetic progression is a sequence of the form a, a+b, a+2b, ..., a+nb where n=0, 1, 2, 3, ... For this problem, a is a non-negative integer and b is a positive integer.

Write a program that finds all arithmetic progressions of length n in the set S of bisquares. The set of bisquares is defined as the set of all integers of the form $p^2 + q^2$ (where p and q are non-negative integers).

TIME LIMIT: 5 secs

PROGRAM NAME: ariprog

INPUT FORMAT

Line 1:	N (3 <= N <= 25), the length of progressions for which to search
Line 2:	M (1 <= M <= 250), an upper bound to limit the search to the bisquares with 0 <= p,q <= M.

SAMPLE INPUT (file ariprog.in)

```
5
7
```

OUTPUT FORMAT

If no sequence is found, a single line reading `NONE'. Otherwise, output one or more lines, each with two integers: the first element in a found sequence and the difference between consecutive elements in the same sequence. The lines should be ordered with smallest-difference sequences first and smallest starting number within those sequences first.

There will be no more than 10,000 sequences.

SAMPLE OUTPUT (file ariprog.out)

```
1 4
37 4
2 8
29 8
1 12
5 12
13 12
17 12
5 20
2 24
```

Submit a solution:

Choose File No file chosen Send it in!

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