List prime number

Finding all ***prime number*** in range [*a*, *b*].

Input

The first line of the input consist of a single integer number *t* which determines the number of tests.

In each of next *t* lines there is two number *a* and *b* that separated by a sapce.

Constraints

- $0 < t \leq 1\,000$
- $1 \leq a \leq b \leq 500$

Output

For each test case print out all ***fat number*** found inside the range which separated by a comma.

Separate your answers with a new line character.

Example

Input:
2
10 50
500 400

Output:
11,13,17,19,23,29,31,37,41,43,47
401,409,419,421,431,433,439,443,449,457,461,463,467,479,487,491,499