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# PRIME1 - Prime Generator

#number-theory (/problems/tag/number-theory)

Peter wants to generate some prime numbers for his cryptosystem. Help him! Your task is to generate all prime numbers between two given numbers!

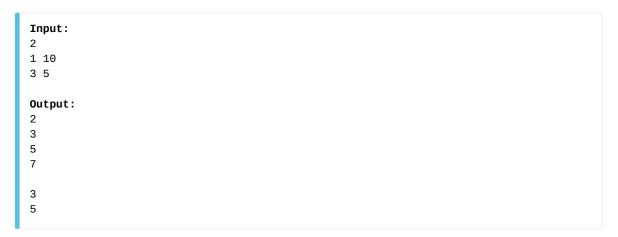
### Input

The input begins with the number t of test cases in a single line (t<=10). In each of the next t lines there are two numbers m and n (1 <= m <= n <= 10000000000, n-m<=100000) separated by a space.

## Output

For every test case print all prime numbers p such that  $m \le p \le n$ , one number per line, test cases separated by an empty line.

## Example



Warning: large Input/Output data, be careful with certain languages (though most should be OK if the algorithm is well designed)

#### Information

After cluster change, please consider PRINT (http://www.spoj.com/problems/PRINT/) as a more challenging problem.

✓ Submit solution! (/submit/PRIME1/)