

Southeastern European Regional Programming Contest
Bucharest, Romania - Vinnitsa, Ukraine
October 13, 2012

Problem C
Primes

Input File: C.IN
Output File: standard output
Program Source File: C.C, C.CPP, C.JAVA

Let m and n be two integers, $2 \leq m < n \leq 10000000$. Consider the following set:

$$Prime(m, n) = \{ p \mid p \text{ prime and } m \leq p \leq n \}.$$

Compute the cardinal of the set $Prime(m, n)$.

Input
The input file consists of several tests. The input of each test is represented on a single line in the input file. Any two consecutive tests are separated by an empty line. For each test, the values for m and n are given on the same line, separated by exactly one space.

Output
For each test, the result will be written to standard output on a different line (the tests will have the same order as in the input file). The results of any two consecutive tests will be separated by an empty line. For each test, the result will be the cardinal of the set $Prime(m, n)$.

Sample input	Sample output
2 20	8
70 110	10
5 150	33