

AUBG, Computer Science Department

Annual Programming Competition

March 22, 2017

Task. Primes

A prime is an integer greater than 1 that has no positive divisors other than 1 and itself. Given integers a , b and c , how many pairs of primes x and y exist such that $a \leq x < y \leq b$ and $y = x + c$.

Input: a , b and c , separated by space.

Output: One integer equals to the requested count of pairs.

Constraints: $1 < a < b < 50\,000\,000$, $0 < c < 100$.

Example

Input:

2 97 50

Output:

6

Explanation:

For this input, there are six pairs and they are

3 and 53, 11 and 61, 17 and 67, 23 and 73, 29 and 79, 47 and 97.