Problem 11 - Twin Primes

In mathematics, numbers greater than 1 that have no divisors other than itself and 1 are considered prime. The prime numbers between 1 and 12 are 2, 3, 5, 7 and 11. Prime numbers that are separated by a single even number on a standard number line are considered twin prime pairs. (3,5) and (5,7) are both twin prime pairs.

Write a program that will find the summation of all the twin prime pairs and the number of twin prime pairs between two given integers, including the endpoints. The constraint of the input is that integers given will be between 1 and 10,000.

Input
Input will be two integers per line separated by a single space. There will be a new line character after each line of input. EOF will indicate all input is done.

Output
Output will be the summation of all twin prime pairs between the two given integers on one line. This will be followed by the total number of prime pairs in the given range on the second line.

Sample Input
10 100
100 25

Sample Output
468
6
408
4