

Twin numbers

Two positive integers A , B are given. It is required to find and output all pairs of “twin” numbers on the segment $[A; B]$. Two numbers are called twins when they are simple and differ by two.

Input

From the standard input device, two positive integers A ($2 \leq A \leq 10^5$) and B ($2 \leq B \leq 10^5$) are entered in the first line through the space.

Output

It is required to derive all pairs of "twin numbers" located on the segment $[A; B]$.

Pairs are required to be displayed in ascending order of the smallest element of the pair. In a pair, first you need to output the smallest element of the pair, and after the largest.

The numbers in the pair must be separated by a space; no space is required after the second member of the pair.

Sample Input

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2 10
```

Sample Output

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3 5  
5 7
```

Note

Try implementing the *isPrime*(n) function, which returns 1 when n is prime, and 0 otherwise.