

## E. Chicken Wings

time limit per test: 0.5 seconds  
 memory limit per test: 64 megabytes  
 input: standard input  
 output: standard output

Sean Sina is a sportsman, he plays Roman wrestling. His coach ordered him to only eat prime number of chicken wings.

Sina doesn't know the number of chicken wings. He asked his coach and the coach was busy. He told him that he can eat any prime number of chicken wings that lies between  $L$  and  $R$  (inclusive).

But there is a problem, each time Sina eats a prime number of chicken wings, the price he pays per wing increases by 1.

Sina wants to know the price of the most expensive chicken wing he will pay after eating all the number of chicken wings he can find between  $L$  and  $R$  (inclusive) and the total number of chicken wings he will eat.

### Input

The first and only line of the input contains 2 integers  $L$  and  $R$  ( $1 \leq L \leq R \leq 10^5$ ).

### Output

Print in one line the total number of chicken wings that he will eat and the price he pays for the most expensive chicken wing.

### Examples

input	<a href="#">Copy</a>
1 10	
output	<a href="#">Copy</a>
17 4	

  

input	<a href="#">Copy</a>
7 15	
output	<a href="#">Copy</a>
31 3	

### Note

The price of the first chicken wing before he starts eating anything is 1.

### ICPC Assiut Advanced Newcomers 2023

Private

Participant



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Finished

Practice



#### → Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

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Language: [GNU G++20 11.2.0 \(64 bit, w\)](#)