A number is perfect if it is equal to the sum of its divisors, the ones that are smaller than it. For example, number 28 is perfect because 28 = 1 + 2 + 4 + 7 + 14. Motivated by this definition, we introduce the metric of imperfection of number N, denoted with f(N), as the absolute difference between N and the sum of its divisors less than N. It follows that perfect numbers' imperfection score is 0, and the rest of natural numbers have a higher imperfection score. For example:

- f(6) = |6 - 1 - 2 - 3| = 0
- f(11) = |11 - 1| = 10
- f(24) = |24 - 1 - 2 - 3 - 4 - 6 - 8 - 12| = |-12| = 12

Write a programme that, for positive integers A and B, calculates the sum of imperfections of all numbers between A and B: f(A) + f(A + 1) + ... + f(B).

Input

The first line of input contains the positive integers A and B (1 <= A <= B <= 10^6).

Output

The first and only line of output must contain the required sum.

Example 1

Input

```
1 9
```

Output

```
21
```

Example 2

Input

```
24 24
```

Output

```
12
```