Easy Math

Zoro is a student of a primary school. He likes to solve mathematical problem. One day he tries to solve a math, but he is unable to solve the problem efficiently because of being a student of primary school. As you are a programmer he wants your help to solve this problem. The problem is to find the sum of some consecutive numbers.

Example, if the first number is 2 and the last number is 5, then the result would be

2 + 3 + 4 + 5 = 14

Input

Every line contains two integers a and b. Input is terminated by the **end of file.**

Output

Output the sum the of all numbers between a and b (inclusively).

Constraints

$-10^8 \leq (a , b) \leq 10^8$

Example

Input:

2 5

5 10

Output:

14

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