

Iterated sums

Please compute the sum of squares for the given numbers: $a, a+1, \dots, b-1, b$.

Input

Two numbers: a and b separated by space, where $1 \leq a \leq b \leq 100$.

Output

Computed sum: $a^2 + (a+1)^2 + \dots + (b-1)^2 + b^2$

Example

Input:

1 4

Output:

30

Example 2

Input:

5 6

Output:

61