SIENA COLLEGE

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Gold Problem #2: The Cisco Kid and The Crayola Grid!

Background Information: In kindergarten you may have been asked to color squares on a piece of grid paper in order to develop fine motor skills. It was important to "stay in the lines". Now that you are in high school you may find yourself thinking back on those crayola days of yore. And when you do, you should want to know how many different squares can be colored on a grid. To be more specific: how many squares can be found on an M by N grid where $M \le N$?

Consid	ler a	3	by	5	grid	l.

For this example with a 3 by 5 grid, the number of squares is the sum of the 1 by 1 squares, 2 by 2 squares, and 3 by 3 squares. The total number of squares is 26 because the number of 1 by 1 squares is 15, the number of 2 by 2 squares is 8, and the number of 3 by 3 squares is 3 and 15 + 8 + 3 = 26. Notice that the number of 1 by 1 squares is 3 x 5, the number of 2 by 2 squares is 2 x 4, and the number of 3 by 3 squares is 1 x 3.

Programming Problem:

Input: Positive integers M and N on separate lines with $M \le N$ and $N \le 100$. Output: The number of squares on the M by N grid.

Example 1: Input: 8

Output: 204

Example 2: Input: 3

Output: 20

Example 3: Input: 2

100

Output: 299