The original problem is below. Let m be the number of rows of in the rectangle and n be the number of columns in the rectangle. So a 1x3 rectangle in one unit high and 3 units long. We will count each shape of rectangle possible.

1x1	1x2	1x3	1x4	1x5	1x6	1x7
25	18	13	8	5	2	1

2x1	2x2	2x3	2x4	2x5
18	12	8	4	2

3x1	3x2	3x3	3x4	3x5
13	8	5	2	1

4x1	4x2	4x3
8	4	2

5x1	5x2	5x3
5	2	1

6x1

2

7x1

1

Adding up all of these rectangles gives 170.

Counting Rectangles

How many rectangles are in the following shape? Each square may be used in many different rectangles. Note: a square is a rectangle.