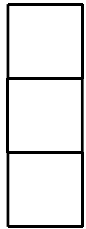
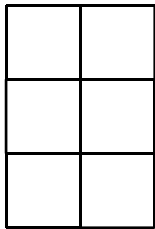


Building Blocks

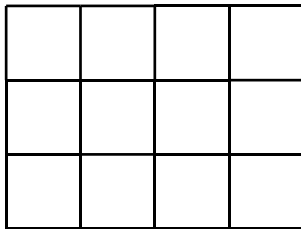
The sequence below begins with 3 unit squares in Step 1, 6 unit squares in Step 2, and so on. Generate an explicit formula for the number of unit squares needed to construct the n^{th} step. To get full credit for this problem, you will need to justify your answer by adequately explaining how your formula relates to the physical attributes of the construction.



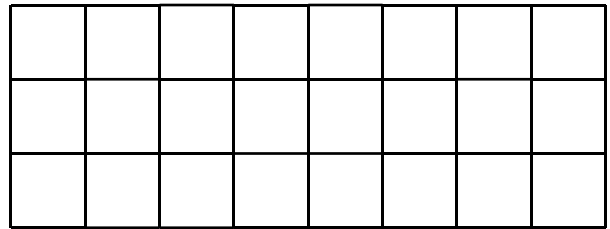
Step 1



Step 2



Step 3



Step 4

When you have solved this problem, go to Room 305 of Jordan Hall to present your solution to the Master Teacher. This problem is worth a total of 3 puzzle pieces.