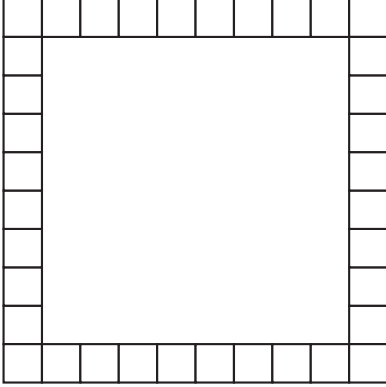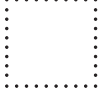Name:_____

Garden Tiles

1. Jerome has plans to put a border of 1 square foot tiles around his $10' \times 10'$ garden.

Suppose you are helping Jerome.

1. How many tiles will he need to purchase? (Include your work)

2. Find at least four other ways to determine the answer (in what other ways could Jerome count the number of tiles - without counting them one by one).

3. For each of your (5) ways, draw a diagram that shows how it works.

e.g. If you were to count all of the tiles one at a time, your diagram would look like this:

2. Now help Jerome generalize his garden tile requirements to an $n \times n$ garden. Write five different formulas with accomanying diagrams that represent the total number of tiles Jerome would need for an $n \times n$ garden.