1. Danny, Elaina and Steve are part of a group having 10 students. There are 10 chairs on a stage arranged in a straight line. This group of students must sit on these 10 chairs. Danny, Elaina and Steve misbehave when they sit together, so no two of them can sit together. How many seating arrangements are possible?

2. The dots on the square grid are equally spaced by one unit horizontally and vertically. How many squares have all their vertices among the dots of the 7 x 7 grid and such that all their sides are either vertical or horizontal (no slanted squares)?

3. Two points determine one line and three non-collinear points (not all in a straight line) determine three lines. How many lines are determined by 11 points, no three of them are collinear?

4. Brittany wrote on a big piece of paper all the numbers from 1 to 9999. How many zero digits did she have to write down?

5. Starting at home, Caleb walked 1 block north, 2 blocks east, 3 blocks south, 4 blocks west, and so on, each time turning 90 degrees to his right and walking one block further. After walking a total of 820 blocks, how many blocks is Caleb from home? Express your answer in simplest radical form.