Shape Explorer Exploration Questions

1. Imagine that the grid is a geoboard (each intersection of the grid lines is a peg on the board). Record the perimeter, the number of grid line intersections on the edge of the shape, and the number of grid line intersections inside the shape for two shapes. Can you see a pattern? What is that pattern? Can you create a formula or rule for the perimeter using the data you collected? What is the formula?

2. Imagine that the grid is a geoboard (each intersection of the grid lines is a peg on the board). Record the area. The area can be thought of as how many blocks of space are contained in the shape. Can you see a pattern? What is that pattern? Can you create a formula or rule for the area using the data you collected? What is the formula?

3. Try finding the area by imagining the shape enclosed in box and subtracting the area in the box that is not used from the area of the box. Do you get the same answer? Why? Is this method always easier? If not, explain when it is easer to use this method and when it is not.