MATH 126
Geoboards: Area

Try each of the problems below on the geoboard. Once you have an answer, transfer the picture to paper so you have a record of your solution.

1. Show a scalene triangle.

2. Show an isosceles triangle.

3. Can you make an equilateral triangle? If so, show it.

4. Show a triangle that has an area of one square unit.

5. Show a triangle with an area of 3 square units.

6. Can you make a triangle with an area of 5 square units? If so, show it.

7. Show two triangles that have the same shape but are different sizes (these triangles are called *similar*).

8. Make a hexagon and determine its area.

9. Show a rectangle with an area of 6. What is its perimeter?

For numbers 10 & 11: You may recall (through multiplication models) that the area of a rectangle is given by base $\times$ height. Use this information and the geoboard to…

10. Demonstrate that the area of a triangle is $\frac{1}{2} \times \text{base} \times \text{height}$. How do you know?
11. Demonstrate that the area of a parallelogram is base $\times$ height. How do you know?

12. Form a figure with area $3\frac{1}{2}$.

13. Form a figure with area 7.

14. Show a square with area 5.

15. Show a square with area 10.