

Teacher Notes

Objective

- To explore and discover the formula for finding the area of a regular polygon.

Area of a Regular Polygon

This activity has the students derive the formula for finding the area of a regular polygon. Demonstrating the procedure of constructing a regular polygon in front of the class maybe necessary depending on the students prior experience. When constructing the regular polygons by rotating the triangle, students may rotate the triangle as many times as they need to complete the polygon. Have the students construct and find the area for at least two polygons. The formula for the area of a regular polygon that they should arrive

at is $A = \frac{Pa}{2}$ where P is the perimeter, and a is the apothem.