

# USING THE *GEOMETER'S SKETCHPAD*

## LESSON PLAN

Parallel, Perpendicular Lines, Slope, Angle Measure, Perimeter  
and Area of Polygons

**GRADE LEVEL:** 9 - 12

### **STUDENT (IGOs):**

- **M7.25:** Complete the review assignment on plotting points in the coordinate plane
- **A1.9, A2.2:** Complete the review assignment on computing the slope of a line
- **G.5, G.17:** Complete the assignment on parallel and perpendicular lines and their slopes
- **G.17:** Complete the assignment on the distance formula
- **G.16:** Complete the assignment on formulas for area and perimeter of polygons
- **G.23:** Connect to the Geometer's Sketchpad and complete the assignment

### **OBJECTIVES:**

1. Using *Geometer's Sketchpad*, the students will be able to draw coordinate graphs, plot points, create parallel and perpendicular lines.
2. Using the *Geometer's Sketchpad*, the students will be able to measure slope, angles, perimeter and area of polygons.

**TIME FRAME:** 1 - 2 DAYS

### **MATERIALS:**

- *Geometer's Sketchpad*
- Computer Lab
- Worksheet
- Pencil or pen

## **PROCEDURE:**

1. Take students to computer lab.
2. Make sure all students are aware of the tools and icons in the software.
3. Explain to the students that the purpose of this activity is to further their knowledge of geometry, parallel and perpendicular lines, slope, angle measure, and perimeter and area of polygons.
4. Distribute Worksheet , Inform students that this is a discovery lesson and that they are to follow the directions on the worksheet after they have opened the *Geometer's Sketchpad* software.
5. When finished, students are to include their name on the last sketch and print it out.
6. Turn in the worksheet and the sketch with your name on it and try to discover more tools available on this software program.

## **EVALUATION:**

1. Completion of Worksheet
2. Submitting of printed copies of Sketches I - IV
3. Participation in class

## **Internet Sites:**

Trek-21([www.trek-21.wvu.edu](http://www.trek-21.wvu.edu))

Phase 9([www.thesolutionsite.com](http://www.thesolutionsite.com))

Geometer's Sketchpad([www.keypress.com](http://www.keypress.com))

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