

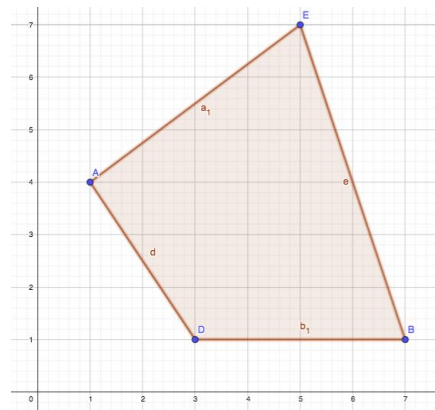
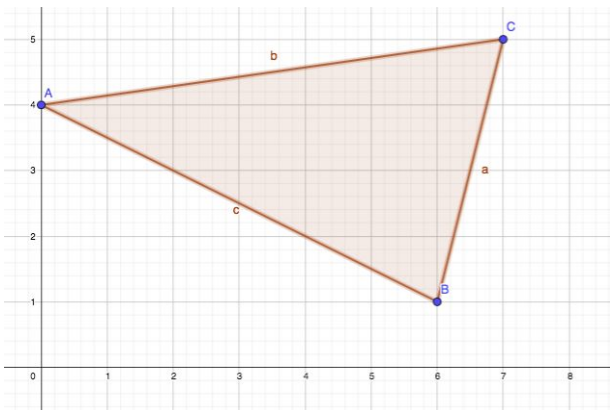
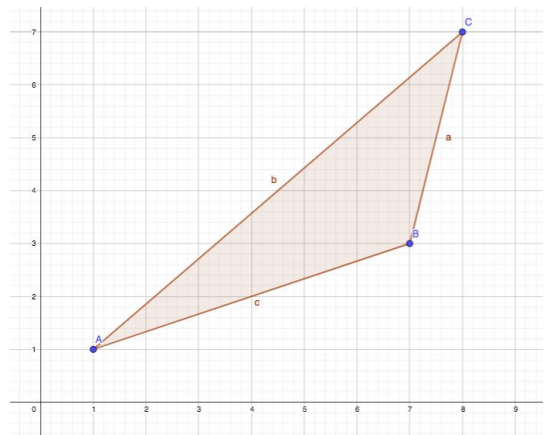
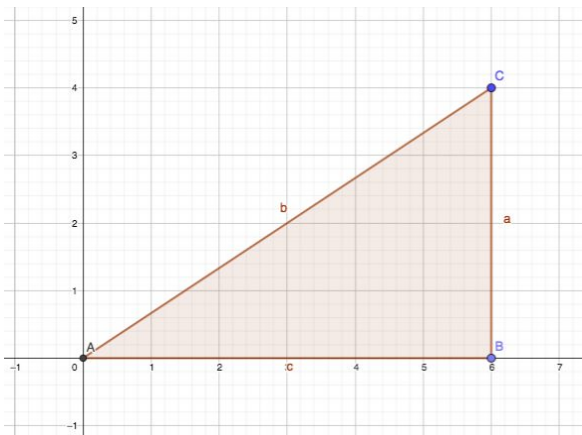
IM2 Problem Set 2.1 - Working with Slopes, Lines and Angles

BIG PICTURE of this UNIT:

- How do I determine the measure of angles in geometric shapes, without direct measurement?
- How do I solve for sides or angles in right triangles?
- How can I solve problems that require geometric models using right triangles??

Part 1 - Skills Practice (After Lab 5)

1. Determine the angle that the line $y = 2x - 3$ makes with the x -axis. DO NOT use GEOGEBRA!!
2. Determine the angle that the line $y = -3x + 2$ makes with the x -axis. DO NOT use GEOGEBRA!!
3. Determine the angle that the line $2x - 6y = 12$ makes with the x -axis. DO NOT use GEOGEBRA!!
4. A line goes through the points $A(-2,3)$ and $B(3,10)$.
 - a. Determine the slope of this line.
 - b. Determine the equation of this line.
 - c. Find the angle that this line makes with the x -axis.
5. Here are some diagrams of a triangles and a quadrilateral as created using GEOGEBRA. Determine the measure of all three (or four) angles. DO NOT USE GEOGEBRA to do this work



6. (HL EXTENSION Q) The lines $2x + 3y = 6$ and $y = -3x - 5$ intersect at a given point. Find this point as well as the angle between the two lines at this intersection point.