5.1 Geometry: Plane Figures
In this worksheet, we will practice identifying plane figures and finding their angle measures. If you would like to review the basics, links to video descriptions can be found at the end of this worksheet. Starred problems have video solutions.

1 List the four-sided plane figures that always have the following characteristics.
   (a) All sides of equal length
   (b) Exactly one set of parallel sides
   (c) All angles of equal measure
   (d) Opposite sides with equal length
   (e) Opposite angles of equal measure
   (f) Two sets of parallel sides
   (g) At least one acute angle
   (h) All angles and sides equal

2 Parallelogram ABCD has angle A of measure 35°. If angle C is opposite angle A, what is the measure of angle D?
   (a) 35°
   (b) 55°
   (c) 90°
   (d) 145°

3 Trapezoid ABCD has angle B of measure of 85°, and the trapezoid has two right angles: angle A and angle C. What is the measure of angle D?
   (a) 5°
   (b) 85°
   (c) 95°
   (d) 135°

4 * Parallelogram EFGH has angle E that is 3 times greater than angle F. If angle G is opposite of angle E, what is the measure of angle G?
   (a) 45°
   (b) 90°
   (c) 135°
   (d) None of the above
5 Find the missing angle x, in each of the following figures.

Figure 5.1.1

Figure 5.1.2

Figure 5.1.3

Figure 5.1.4

Additional Resources:
- For review on classifying quadrilaterals: [http://youtu.be/Ka82QC4QvGA](http://youtu.be/Ka82QC4QvGA)
- For review on quadrilateral properties: [http://youtu.be/5CeBlu260Rw](http://youtu.be/5CeBlu260Rw)
- Video solution for question 4 on this worksheet: [http://youtu.be/KMIhgCIi1qA](http://youtu.be/KMIhgCIi1qA)