

READY, SET, GO!

Name

Period

Date

### READY

Topic: Polygons, definition and names

1. What is a polygon? Describe in your own words what a polygon is.

2. Fill in the names of each polygon based on the number of sides the polygon has.

Number of Sides	Name of Polygon
3	
4	
5	
6	
7	
8	
9	
10	

### SET

Topic: Kites, Lines of symmetry and diagonals.

3. One quadrilateral with special attributes is a kite. Find the geometric definition of a kite and write it below along with a sketch. (You can do this fairly quickly by doing a search online.)

4. Draw a kite and draw all of the lines of reflective symmetry and all of the diagonals.

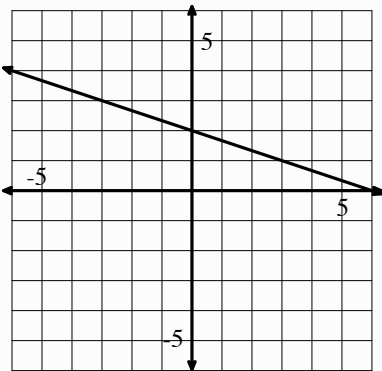
**Lines of Reflective Symmetry**

**Diagonals**

5. List all of the rotational symmetry for a kite.
  
  
  
  
  
  
  
  
  
  
6. Are lines of symmetry for any given polygon also diagonals? Explain.
  
  
  
  
  
  
  
  
  
  
6. Are all diagonals for any given polygon also lines of symmetry? Explain.
  
  
  
  
  
  
  
  
  
  
7. Which quadrilaterals have diagonals that are not lines of symmetry? Name some and draw them.
  
  
  
  
  
  
  
  
  
  
8. Do parallelograms have diagonals that are lines of symmetry? If so, draw and explain. If not draw and explain.

**GO**

Topic: Equations for parallel and perpendicular lines.

	<b>Find the equation of a line PARALLEL to the given info and through the indicated point.</b>	<b>Find the equation of a line PERPENDICULAR to the given line and through the indicated point.</b>										
9. Equation of a line: $y = 4x + 1.$	a. Parallel line through point $(-1, -7)$ :	b. Perpendicular to the line line through point $(-1, -7)$ :										
10. Table of a line: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>-8</td> </tr> <tr> <td>4</td> <td>-10</td> </tr> <tr> <td>5</td> <td>-12</td> </tr> <tr> <td>6</td> <td>-14</td> </tr> </tbody> </table>	x	y	3	-8	4	-10	5	-12	6	-14	a. Parallel line through point $(3, 8)$ :	b. Perpendicular to the line through point $(3, 8)$ :
x	y											
3	-8											
4	-10											
5	-12											
6	-14											
11. Graph of a line: 	a. Parallel line through point $(2, -9)$ :	b. Perpendicular to the line through point $(2, -9)$ :										