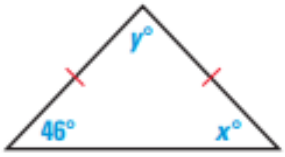
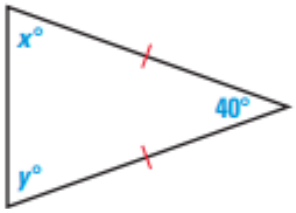
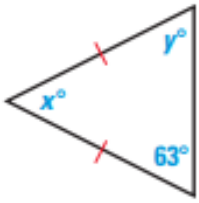
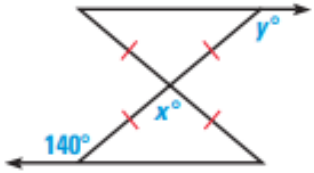
5.4 Name_____

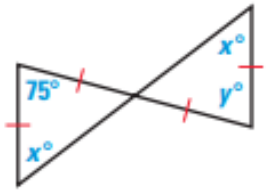
1. Find the missing variables.

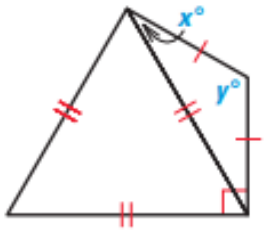








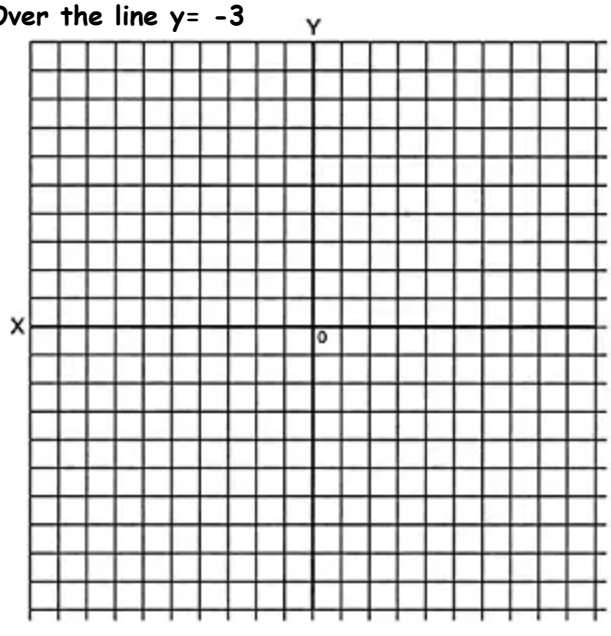




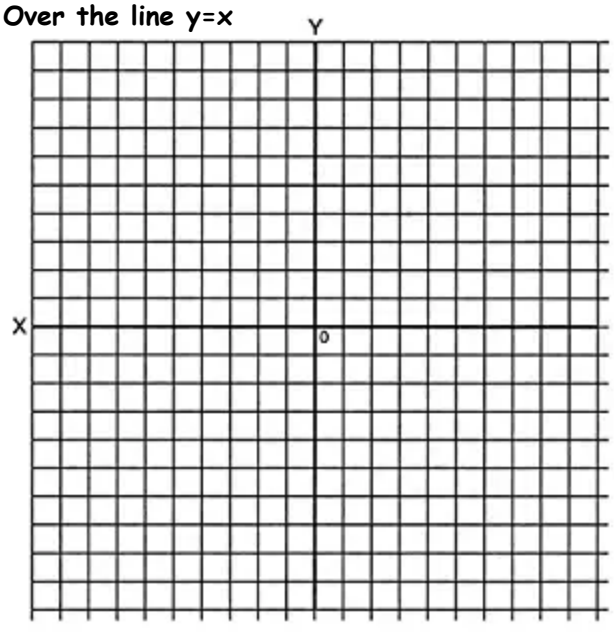
2. Complete the following:
a. a triangle with two congruent sides is called
b. a triangle with no congruent sides is called
c. a triangle with an angle greater than 90 degrees is called
d. if two lines are parallel then the consecutive interior angles are
e. two angles that sum to 90 degrees are called
f. a polygon with 8 sides is called a
g. a polygon with 4 sides is called a
h. A triangle has _____ exterior angles.
i. if two lines are perpendicular then there are _____ right angles
j. two angles with a common side and a common vertex are called
k. if points are on the same line then they are called
l. if points are in the same plane then they are called

3. Graph the triangle A(-2,4), B(3,2), and C(1,4) on each graph and then reflect. Label ALL points. THERE SHOULD BE TWO TRIANGLES ON EACH GRAPH. IF YOU DON'T HAVE TWO TRIANGLES THEN YOU DID THE PROBLEM WRONG. THERE SHOULD ALSO BE A REFLECTION LINE ON THE GRAPHS.

Over the line y= -3



Over the line y=x



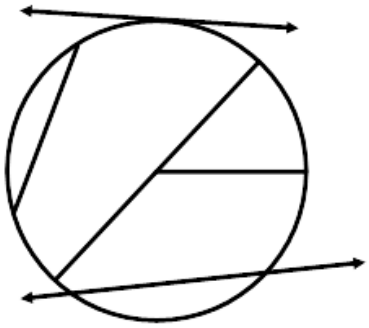
4. The slope of line k is 4. Find the equation of a line that is perpendicular to line k and contains the point (12,-4). SHOW ALL WORK.

5. Find the length of a rectangle with a diagonal of 10 inches and a width of 6 inches.
a. draw and label a picture
b. show work

6. Define a rigid motion and name the transformations that ARE rigid motions.

7. The midpoint M and one endpoint of GH are given. Find the coordinates of the other endpoint.
G(6,-6) and M(4,8) Draw a picture and show work.

8. Label.



9. Triangle ABC has the coordinates A(-4,9), B(0,5) and C(2,-8). Find the new Coordinates after a rotation of 270 degrees.

10. Do the following figures have rotational symmetry? If yes, then find the angle of rotation(s).