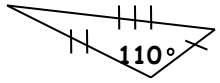
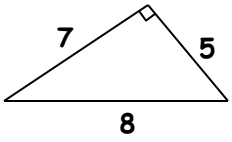
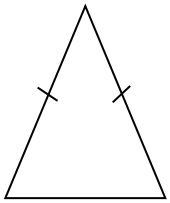
Name_____Period_____ Date_____

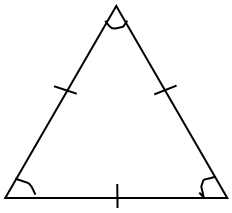
5.1 Classifying Triangles

Classify each triangle by sides and angles.

1. 

2. 

3. 

4. 

Matching.

_____ 5. Triangle with 3 ≅ sides

_____ 6. Triangle with 3 angles less than 90

_____ 7. Triangle with 1 angle = 90

_____ 8. Triangle with at least 2 ≅ sides

_____ 9. Triangle with no ≅ sides

_____ 10. Angle formed by extending the sides of a triangle

_____ 11. Triangle with 3 ≅ angles

_____ 12. Triangle with one angle greater than 90

A. Obtuse triangle

B. Equiangular

C. Equilateral

D. Acute triangle

E. Scalene triangle

F. Isosceles triangle

G. Right triangle

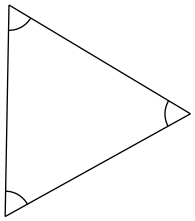
H. Exterior angle

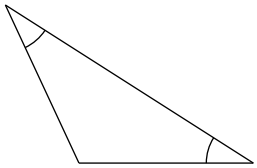
 Name_____

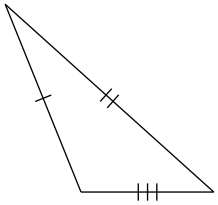
Classifying Triangles and Quadrilaterals

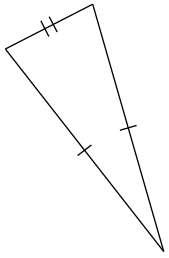
Date_____ Period____

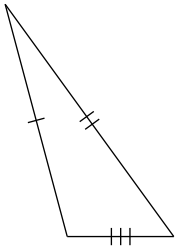
Classify each triangle by its angles and sides.

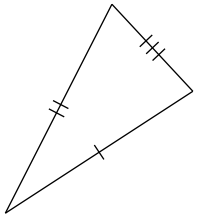
1) 

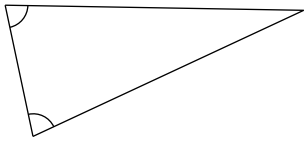
2) 

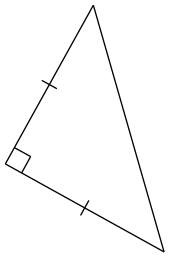
3) 

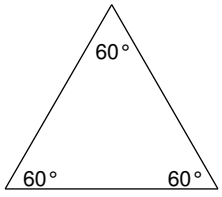
4) 

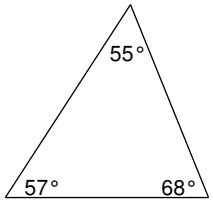
5) 

6) 

7) 

8) 

9) 

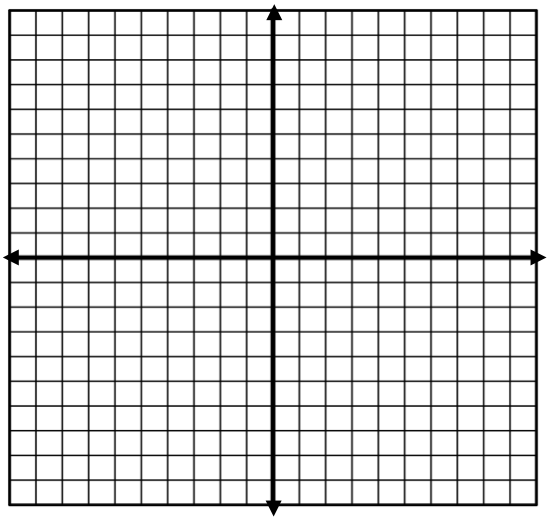
10) 

A Different Approach to Classification

Use your knowledge of triangle classification to solve the following problems.

1. The coordinates for the vertices of ΔABC are as follows: A(-2, 6), B(3, 0), C(-3, -5). Use the coordinate grid below to graph ΔABC.

a) Based on your knowledge of angle classifications, what does the triangle appear to be?



b) Find the slope of each segment of the triangle. Record your answers below.
How can this information be used to confirm your conjecture in part a?

c) Based on your knowledge of side classification, what does the triangle appear to be?

d) Find the side lengths to verify your conjecture. Record the side lengths below.
(hint: use the distance formula)

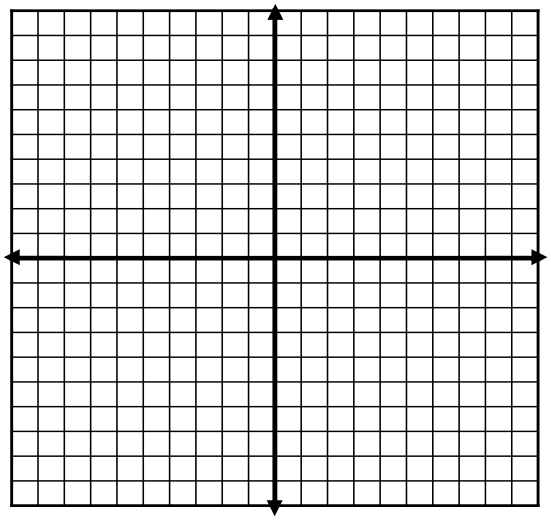
e) Classify ΔABC by sides and angles.

Name_____ Date_____ Period_____

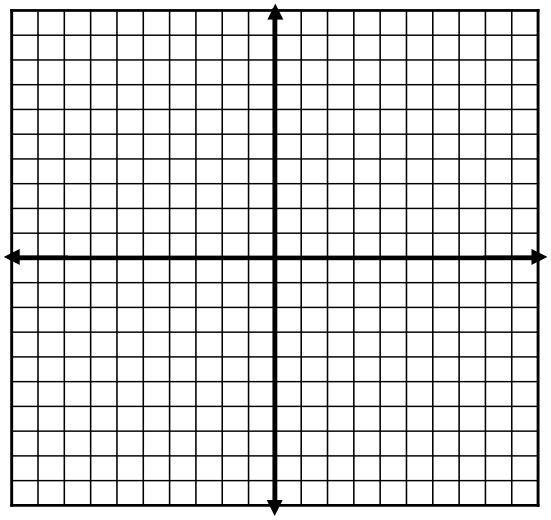
5.1 Classifying Triangles in the Coordinate Plane

For each problem below:
A) Plot each triangle on the coordinate plane.
B) Find each side length and classify the triangle based on the sides.
C) Classify the triangle by angles. Justify right triangles using slope.

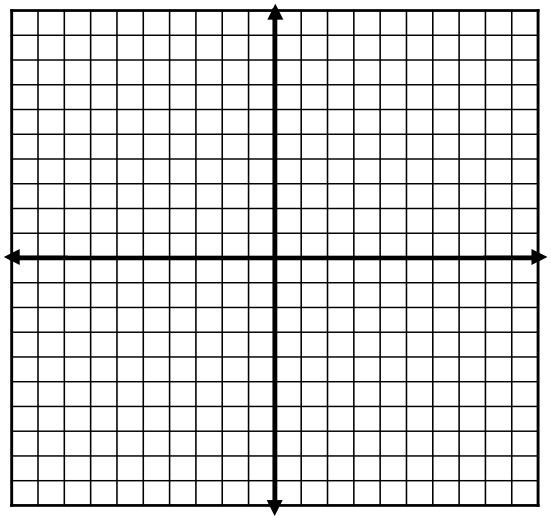
1) A (1, 6), B (1,2), and C (4,2).



2) A (-5, 1), B (3, 5) and C (2, -3)



3) A (2, -3), B (5, -3) and C (2, -6)



4) If a triangle has vertices A (2, 3), B (-4, 3) and C (2, 8), find each side length and classify the triangle based on the sides.