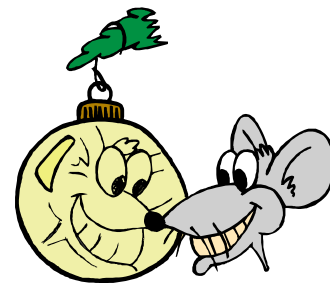# Let's Reflect!

For this activity you will need…
Blank Paper, A Ruler, A Protractor

Directions…

1. Fold the sheet of paper in half and draw thee bold dots on your paper in the shape of a triangle without unfolding the piece of paper.
2. Label the three points A, B, and C and connect them with straight lines using a ruler.
3. Turn over the piece of paper and trace your dots and the line segments of your triangle. Label them A', B', and C'.
4. Use your ruler to connect the corresponding vertices. (For example, connect A to A' and B to B'.)
5. Trace the fold line on your paper. This will cut each of the line segments that you made in step 4 in half. Measure each ½ segment in centimeters and label its measurement on the drawing.
6. What do you notice about these measurements?

7. Measure each angle formed by the segments and the fold line. Label them on the drawing. What is the relationship between these angles?

8. Look at point A, is it located on the right side or left side of your picture? _____
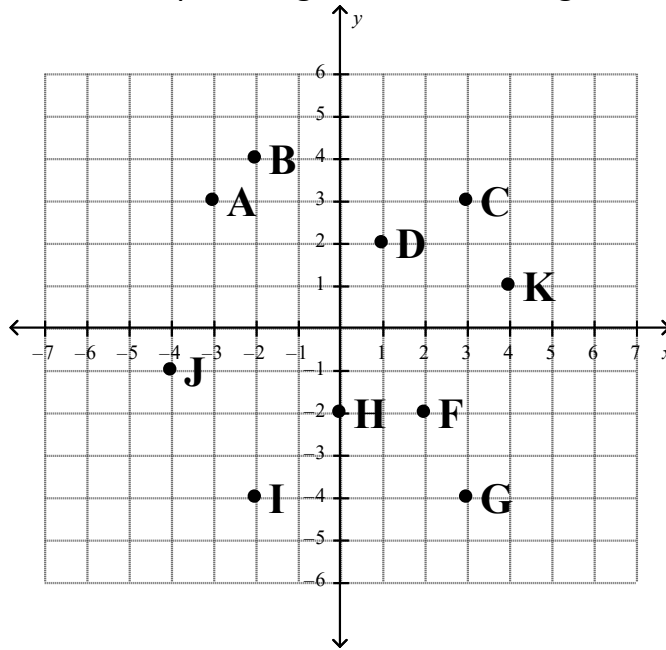
9. Look at point A', is it located on the right side or left side of your picture? _____

10. Do your other corresponding points follow the same change? Explain your thoughts in a complete sentence?

11. Label a point D on the side of your picture with points A, B, and C. Explain in words how to find D' WITHOUT folding the paper.

More Reflections!

1. Describe in words what a reflection is. Draw a picture to support your answer.

2. Use the grid below to find the pre-image and in the image coordinates to complete the following table.

Point	Reflection over the y axis		Reflection over the x-axis	
	Pre-Image	Image	Pre-Image	Image
A	(-3,3)	(3,3)		
B				
C				
D				
F				
G				
H				
I				
J				

3. Use any patterns from the table above to fill in RULES for REFLECTIONS!

	Reflecting over the y-axis	Reflecting over the x-axis
Rules described in WORDS		
Rules using MATH SYMBOLS		