



NAME \_\_\_\_\_

Key

# 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 three 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. Unfold the paper, 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 all 6 segments in centimeters and label its measurement on the drawing.
6. What do you notice about the measurements from the Pre-Image to the fold line and the Image to the fold line?

Pre-Image to fold line  
is congruent to Image to fold line.

7. Measure all 12 angles formed by the segments and the fold line. Label them on the drawing. What is the relationship between these angles?

$AA' \perp$  to fold line,  $BB' \perp$  to fold line  
 $CC' \perp$  to fold line

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

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

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

Yes, all pre-image points are on one side and the image points are on the opposite side of the fold line.

11. Put a point anywhere on the side of your picture with points A, B, and C. Label it D.

Explain in words how to find D' WITHOUT folding the paper.

D' is the same distance away from the fold line just on the opposite side AND  $\perp$  to the fold line.

