Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Block:\_\_\_\_\_\_\_\_

Advanced Geometry - Ch. 12 Review Pt. 2

1. A dilation maps the preimage (-2, 3) onto the image (4, -6). What is the scale factor of the dilation?

2. The base of a triangle measures 5 cm and the height measures 7 cm. After a dilation is performed by a scale factor of 3, what is the area of the new triangle.

3. Draw a coordinate plane and label the quadrants. Label the x and y values as positive or negative in each quadrant.

4. A triangle is located in quadrant IV and reflected across the x-axis, and then across the y-axis. Describe how this could have been done in one transformation.

5. A reflection over a line, followed by a reflection over a parallel line is equivalent to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. Using the word, MONEY , which letters have horizontal line symmetry? Vertical Line symmetry? Neither? Both?

7. A translation using the vector <-2, 5> is performed to create the image (4, -2). What are the coordinates of the preimage?

8. What would the scale factor be of a dilation that rotates a figure 1800 and makes the image a third of the size of the preimage?

9. How many lines of symmetry does a regular octagon have?

10. If the preimage ( 4, -3) goes through a 2700 clockwise rotation, what are the coordinates of the image?

11. If the preimage ( 5, 2) goes through a 900 clockwise rotation, what are the coordinates of the image?

12. How many lines of symmetry does a heptagon have? Does it have rotational symmetry? If yes, what is the angle of rotational symmetry and what is the order?

13. A ferris wheel takes 30 seconds to complete a rotation. A seat that starts on coordinate (10, 0) is rotated for 5 seconds. What is the location of the car?

14. The point (2, 11) is reflected over the line y = 2x + 1