

Name _____
Teacher _____
Class period _____

Date _____

Unit 2 Test REVIEW

Transformations

1. Name the three transformations that are an isometry (keep same size and shape). Name the one transformation that is not an isometry.

_____, _____,

_____.

NOT? _____

2. Write the algebraic representations that correctly describes a reflection over the y-axis.

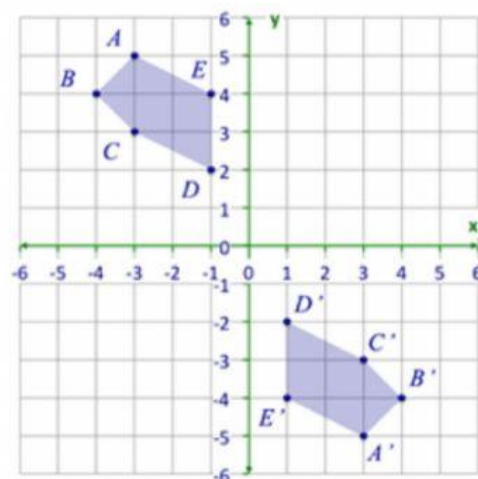
$$(x, y) \rightarrow (\quad , \quad)$$

Over x-axis? $(x, y) \rightarrow (\quad , \quad)$

3. What is the ordered pair rule for a translation 5 units right and 3 units down?

$$(x, y) \rightarrow (x \quad , y \quad)$$

4. Describe the graph below with regard to the rotation shown.



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Figure 1 is for questions 5, 6, and 6

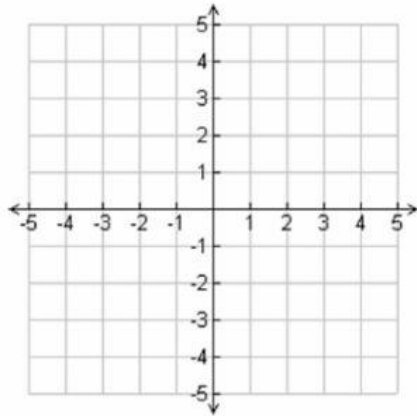


Figure $ABCD$ is graphed with vertices $A(7, 3)$, $B(4, 5)$, $C(3, 4)$ and $D(4, 2)$.

5. **The image of $ABCD$ is under a rotation of 180° about the origin. What is the ordered pair for B' ?**

6. **The image of $ABCD$ is under a rotation of 270° clockwise about the origin. What is the ordered pair for A' ?**

7. **The image of $ABCD$ is under a reflection over the x-axis. What is the ordered pair for C' ?**

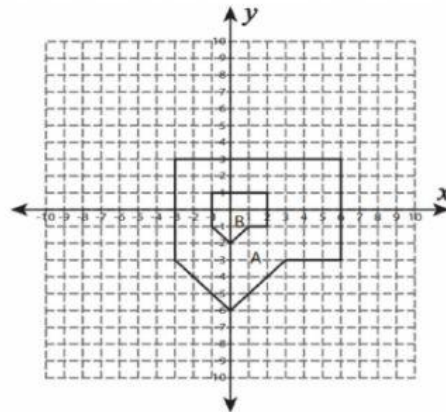
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8. **Figure A is a dilation of figure B. What is the scale factor?**



Scale factor = _____

9. **Find the image of $(-8, 20)$ with a translation of 5 units right and 2 units down.**

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12. Circle the letter of the following statements that are true:

- a. Dilations create similar figures if the scale factor is not 1.
- b. Dilations preserve angle measure.
- c. Dilations can create larger figures or smaller figures.
- d. Dilations produce congruent figures if the scale factor is greater than 1.

13. Which algebraic representation correctly describes a reflection over the x-axis?

- a. $(x, y) \rightarrow (-x, y)$
- b. $(x, y) \rightarrow (-x, -y)$
- c. $(x, y) \rightarrow (x, -y)$
- d. $(x, y) \rightarrow (-y, x)$