

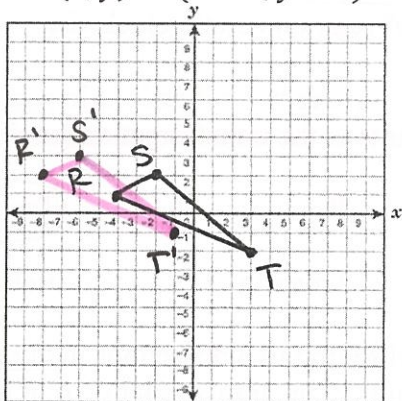
Name: Key

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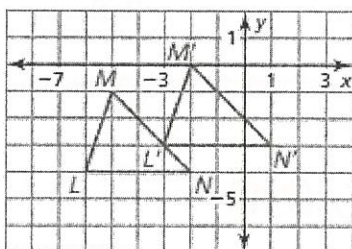
Period:

HW #4-8: Test Review

- Graph $\triangle RST$ with vertices $R(-4, 1)$, $S(-2, 2)$ and $T(3, -2)$ and its image after the translation:
 $(x, y) \rightarrow (x - 4, y + 1)$



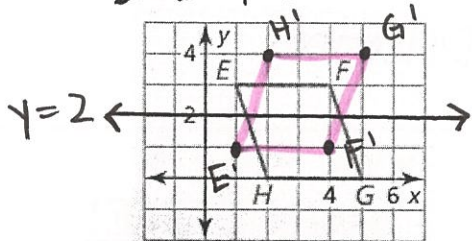
- Write a rule for the translation from $\triangle LMN$ to $\triangle L'M'N'$ in both formats (coordinate rule and vector rule).



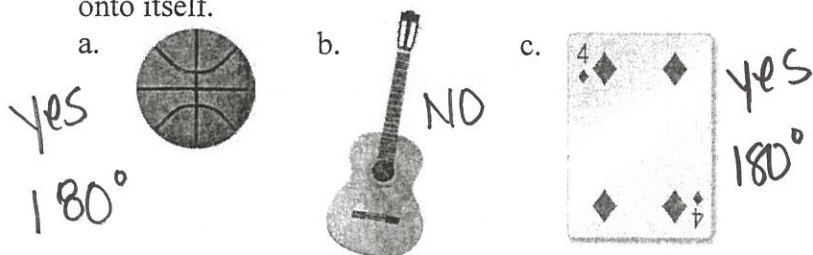
Coordinate Rule: $(x, y) \rightarrow (x + 3, y + 1)$

Vector Rule: $\langle 3, 1 \rangle$

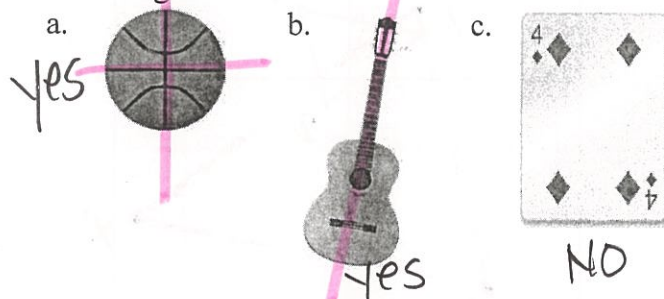
- Graph the polygon's image after a reflection in the line $y = 2$.



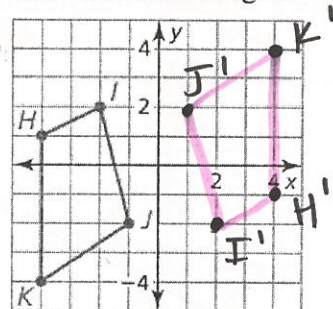
- Determine whether the figure has rotational symmetry. If so, determine ALL angles of rotational symmetry that will map the figure onto itself.



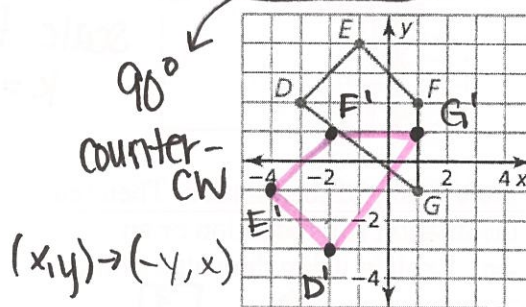
- Determine whether the figure has line symmetry. If so, draw ALL lines of symmetry on the figure.



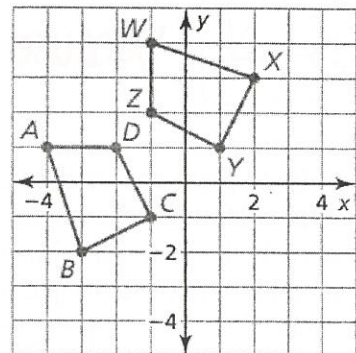
- Graph quadrilateral H'I'J'K' and its image after a rotation of 180° about the origin.



- Graph quadrilateral DEFG and its image after a rotation of 270° clockwise about the origin.

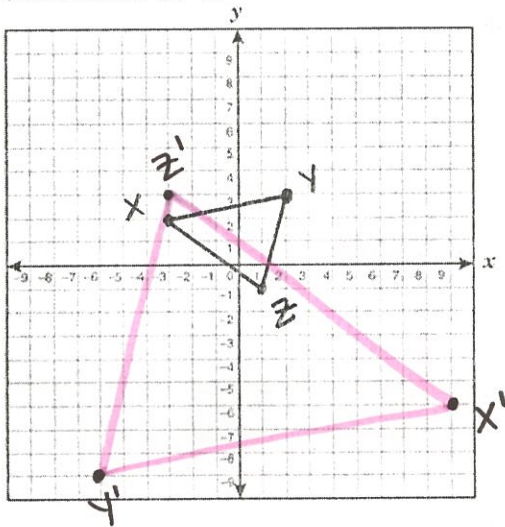


- Determine whether the polygons are congruent. If so, write a composition of transformations that maps quadrilateral WXYZ to quadrilateral ABCD.

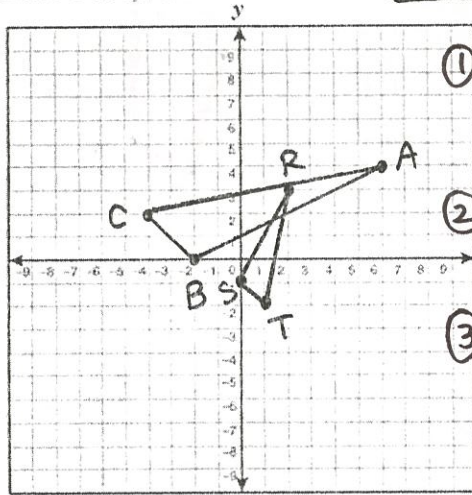


rotate 90° counter-cw
 reflect in x-axis

9. Graph $\triangle XYZ$ and its image after a dilation with scale factor of -3 .

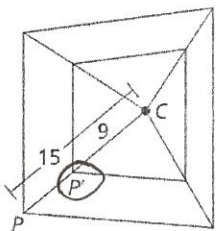


10. Describe a similarity transformation that maps $\triangle ABC$ to $\triangle RST$.



- ① rotate 90° counter-clockwise
 ② reflect in y-axis
 ③ dilate w/ scale factor $k = \frac{1}{2}$

11. Find the scale factor of the dilation. Then tell whether the dilation is a reduction or an enlargement. Explain using the value of the scale factor.



$$k = \frac{9}{15} = \frac{3}{5}$$

This is a reduction because $0 < k < 1$

12. A magnifying glass shows the image of an object that is 10 times the object's actual size. Determine the length of the image of the object if the actual length of the object is 8 millimeters.

$$10 = \frac{x}{8}$$

$$80 = x$$

$$80 \text{ mm}$$

13. A 270° rotation clockwise is the same as a 90° rotation counterclockwise.

14. A 180° rotation clockwise is the same as a 180° rotation counterclockwise.

15. A 90° rotation clockwise is the same as a 270° rotation counterclockwise.

16. Performing two reflections in parallel lines results in the transformation (circle one):

Rotation

Translation

Dilation

Reflection

17. Performing two reflections in intersecting lines results in the transformation (circle one):

Rotation

Translation

Dilation

Reflection

18. Name ALL transformations that are rigid motions:

Translation
 Reflection
 Rotation

19. Name ALL transformations that are nonrigid motions:

Dilation

HW # 4-9
SIGN HERE!

I verify that my student studied for 30 minutes – 1 hour for the Chapter 4 Test on November 22.

Parent Name (print) _____

Parent Signature _____