Name Key Class _____ Date _____

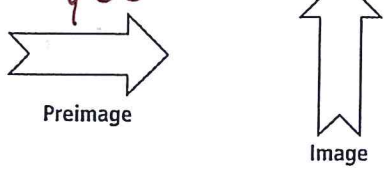
Chapter 9 Review

Lessons 9-1 through 9-4

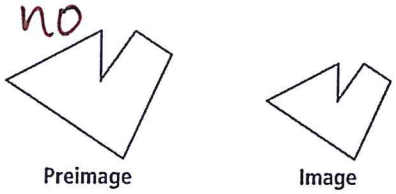
Do you know HOW?

State whether the transformation appears to be an isometry. Explain.

1. yes



2. no

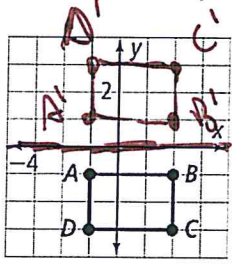


3. If $GHIJ \rightarrow G'H'I'J'$, what is the image of I? $\rightarrow I'$ What is the image of $\overline{GH}$? $\rightarrow \overline{G'H'}$

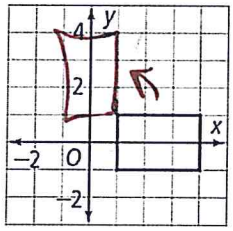
4. Point $R(x, y)$ moves 13 units right and 14 units down. What is a rule that describes this translation? $(x+13, y-14)$

Draw the image of each figure for the given transformation.

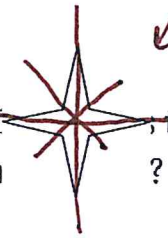
5. reflection across $y = 0$



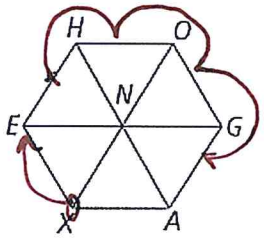
6. 90° rotation about the origin



7. Sketch the line(s) of symmetry. For rotational symmetry, 90° rotational



Point N is the center of regular hexagon $HEXAGO$; the image of the given point or segment for the given ?



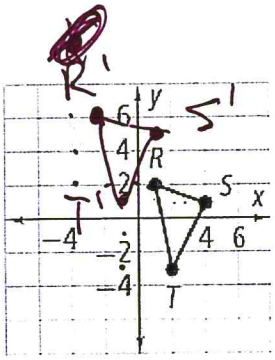
90° rotational

a. 60° rotation of X about N $\rightarrow \overline{E}$

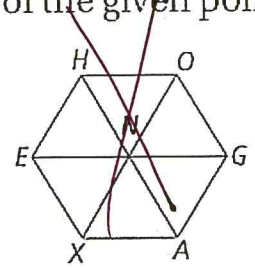
b. 180° rotation of $\overline{HE}$ about N $\rightarrow \overline{AG}$

b. 180° rotation of $\overline{HE}$ about N

What are the vertices of the image of $\triangle RST$ for the translation $(x, y) \rightarrow (x - 3, y + 4)$? Graph the image.



Point N is the center of regular hexagon *HEXAGO*. What is the image of the given point or segment for the given rotation?



a. 60° rotation of X about N

b. 180° rotation of $\overline{HE}$ about N