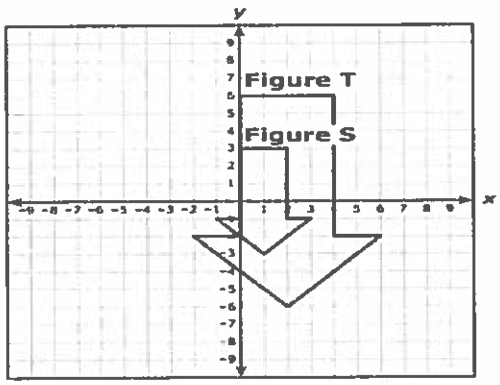
HW#2.7 Name:______________

Figure S, the small arrow, was dilated with the origin as the center of dilation to create Figure T, the large arrow.



Which rule best represents the dilation that was applied to Figure S to create Figure T?

A $(x, y) \rightarrow (2x, 2y)$

B $(x, y) \rightarrow (4x, 4y)$

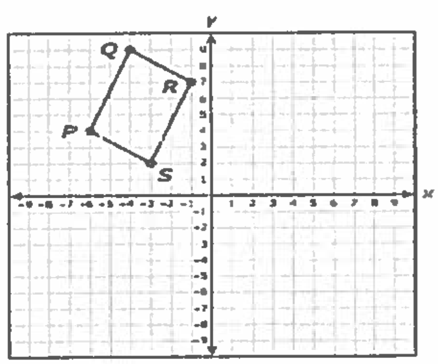
C $(x, y) \rightarrow (\frac{1}{2}x, \frac{1}{2}y)$

D $(x, y) \rightarrow (\frac{1}{4}x, \frac{1}{4}y)$

I picked _____because Figure __ is the original image, therefore, the image got _______________.

Explain how you knew which scale factor was used:

The coordinate grid shows parallelogram *PQRS*.



Parallelogram *PQRS* is rotated 90° clockwise about the origin to create parallelogram *P'Q'R'S'*. Which rule describes this transformation?

F $(x, y) \rightarrow (x, -y)$

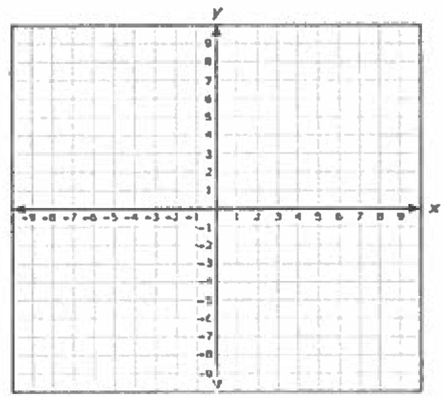
G $(x, y) \rightarrow (-x, y)$

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

J $(x, y) \rightarrow (y, -x)$

I picked ___ because I know that when a 90 degrees rotation takes place, the x and the y _________ then ______ !!!

The coordinates of the vertices of a quadrilateral are $P(1, 2)$, $R(1, 4)$, $S(3, 4)$, and $T(4, 2)$.



Quadrilateral *PRST* is reflected across the *y*-axis to create quadrilateral *P'R'S'T'*. Which rule describes this transformation?

A $(x, y) \rightarrow (x, -y)$

B $(x, y) \rightarrow (-x, y)$

C $(x, y) \rightarrow (y, -x)$

D $(x, y) \rightarrow (-y, x)$

I picked __ because I know that when it reflects over the y-axis then the ___ stays the same.

Triangle *ABC* was translated 2 units to the right and 3 units down. Which rule describes the translation that was applied to triangle *ABC* to create triangle *A'B'C'*?

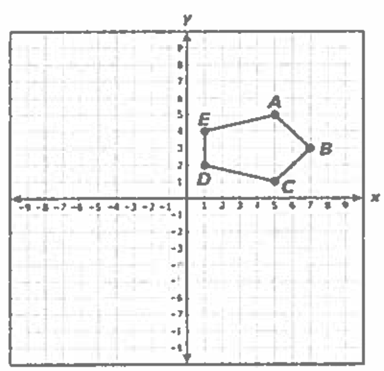
F $(x, y) \rightarrow (x - 3, y + 2)$

G $(x, y) \rightarrow (x + 2, y - 3)$

H $(x, y) \rightarrow (2x, -3y)$

J $(x, y) \rightarrow (-3x, 2y)$

Pentagon *ABCDE* is rotated 180° clockwise about the origin to form pentagon *A'B'C'D'E'*.



Which statement is true?

A Pentagon *ABCDE* is congruent to pentagon *A'B'C'D'E'*.

B The sum of the angle measures of pentagon *A'B'C'D'E'* is 180° more than the sum of the angle measures of pentagon *ABCDE*.

C Each side length of pentagon *A'B'C'D'E'* is 2 times the corresponding side length of pentagon *ABCDE*.

D Each side length of pentagon *A'B'C'D'E'* is $\frac{1}{2}$ the corresponding side length of pentagon *ABCDE*.