Name: _____   Date:_____

Ms. Streffacio   Class: _____

I can:

**Do Now (3 minutes to complete):**

Fill in the rules:

TYPE OF REFLECTION	Point of the pre-image (Before reflection)	Point of the image (After reflection)
Reflection about the x- axis	(x , y)	
Reflection about the y-axis	(x , y)	
Reflection about the line y = x	(x , y)	
Reflection about the line y = -x	(x , y)	
Reflection about the origin	(x , y)	

TYPE OF ROTATION	Point of the pre-image (Before reflection)	Point of the image (After reflection)
Rotation of 90⁰ (clock wise)	(x , y)	
Rotation of 90⁰ (counter clock wise)	(x , y)	
Rotation of 180⁰ (clock wise & counter clock wise)	(x , y)	
Rotation of 270⁰ (clock wise)	(x , y)	
Rotation of 270⁰ (counter clock wise)	(x , y)	

Teacher Model (10 minutes) You Watch, Listen, Copy:

Polygon *ABCD* is shown on the coordinate plane. Sketch the image after it is rotated 90° clockwise about *O* and then dilated with scale factor 2 and center *O*.
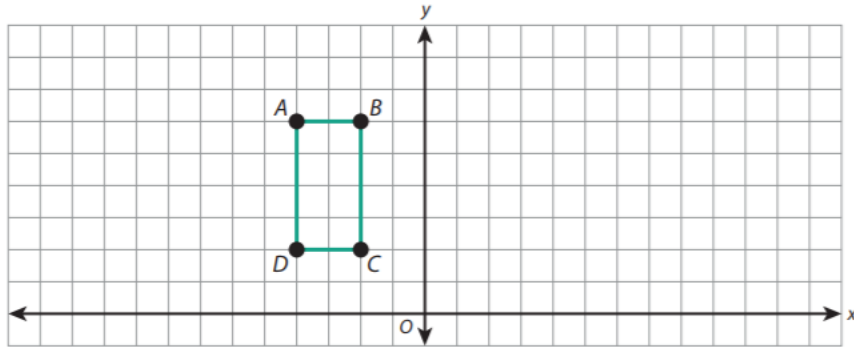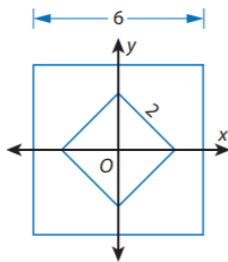
Make sure you rotate the polygon clockwise.

Check for Understanding- Did you understand the Model? (2 minutes) Teacher will check!

What two transformations could transform the smaller square to the larger square?

A Dilation with center *O* and scale factor 3; rotation 45° about *O*

B Dilation with center *O* and scale factor 3; rotation 90° about *O*

C Dilation with center *O* and scale factor $\frac{1}{3}$; rotation 45° about *O*

D Dilation with center *O* and scale factor $\frac{1}{3}$; rotation 180° about *O*

We Do Together (10 minutes):

Polygon *LMNP* was transformed to Polygon *WXYZ*.

Part A
Describe a sequence of transformations that maps Polygon *LMNP* to Polygon *WXYZ*.

_____

_____

What type of transformation can change the size of a figure?

Part B
Find the perimeters of Polygon *WXYZ* and Polygon *LMNP*. Then write the ratio of the perimeter of Polygon *WXYZ* to the perimeter of Polygon *LMNP*. How does this ratio compare to the scale factor you found in Part A?

_____

_____

_____
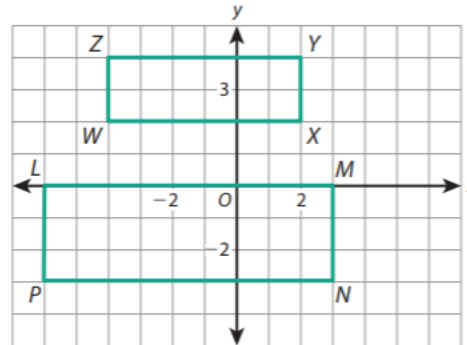
Final Check for Understanding before I send you to Independent Practice! Teacher will Check (4 minutes):

Which sequences of transformations map rectangle *A* to rectangle *B*?

Choose all that apply.

A A rotation 90° about the origin followed by a translation

B A dilation centered at the origin followed by a translation

C A reflection in the *x*-axis followed by a dilation and a translation

D A reflection in the *y*-axis followed by a translation and a rotation

E A rotation 180° about the origin followed by a dilation and translation