

NAME: _____

Math _____, Period _____

Mr. Rogove

Date: _____

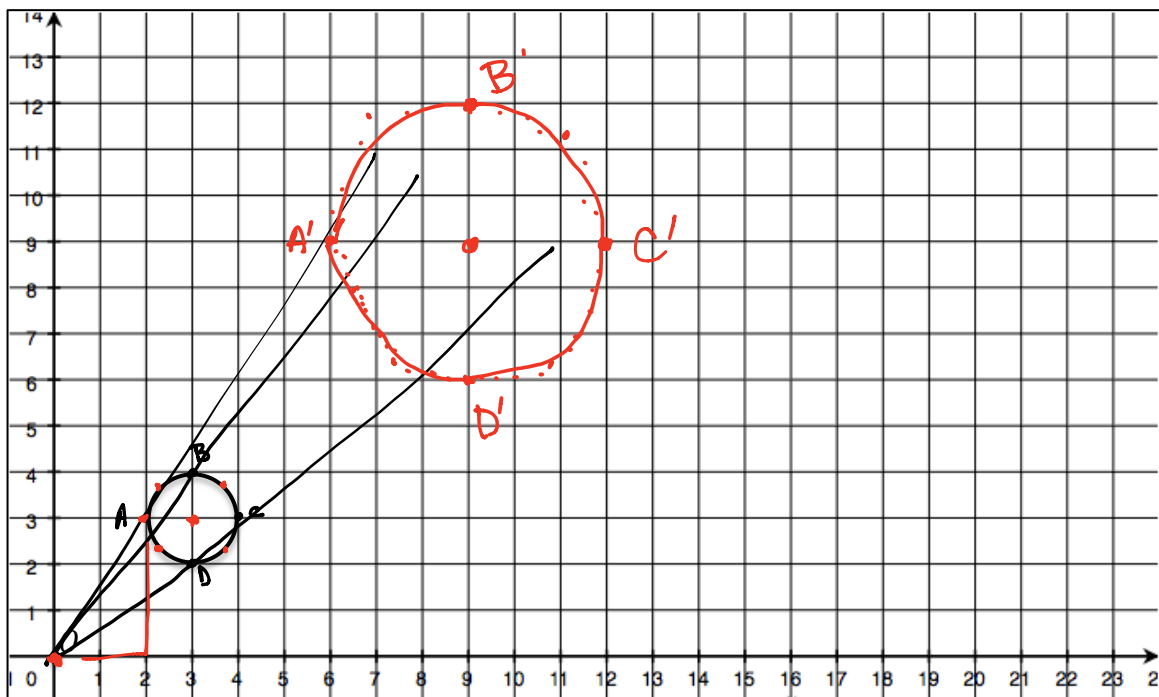
LEARNING OBJECTIVE: We will map dilations using a coordinate plane.
(G8M3L3)

CONCEPT DEVELOPMENT:

Using a coordinate plane can make dilations easier.

If you count the horizontal and vertical units from the center of dilation to a point on the object, you can multiply by the scale factor to map the dilated point.

Dilate by a scale factor of 3.



$2 \times 3, 3 \times 3$

You can add more points for accuracy but it gets messy.

Steps for Dilating Geometric Figures Using a Coordinate Plane

1. Identify key points on the geometric figure and the dilation point.
2. Identify the scale factor.
3. Map your points according to the scale factor to create your dilation.

NAME: _____

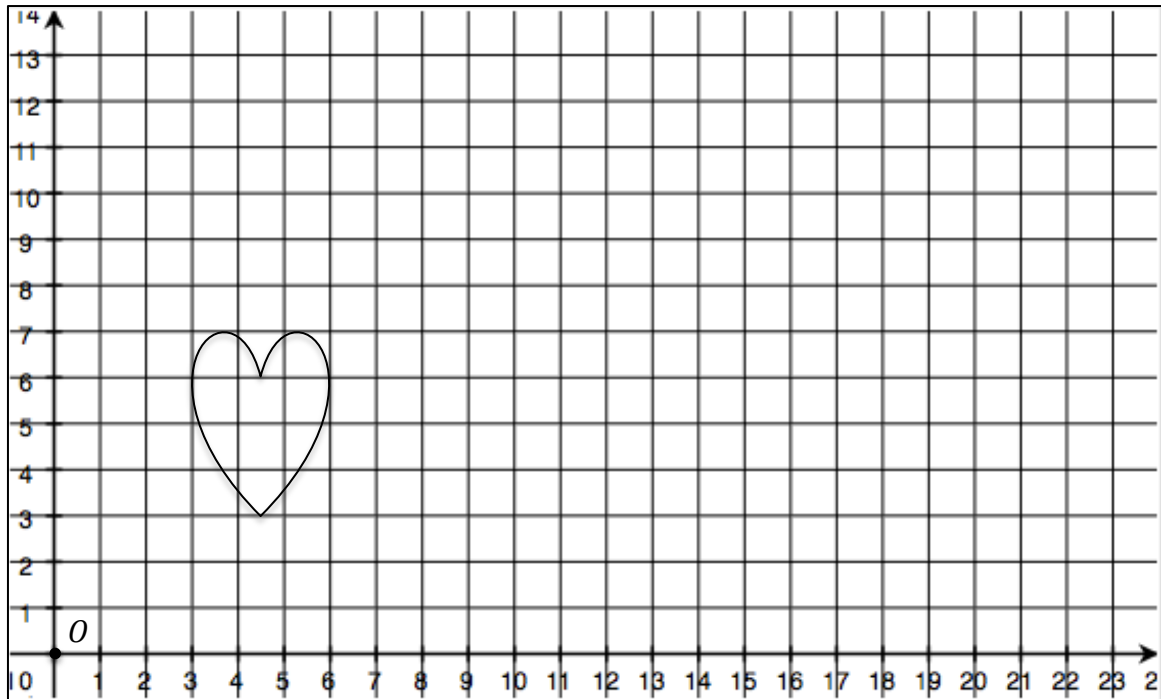
Math _____, Period _____

Mr. Rogove

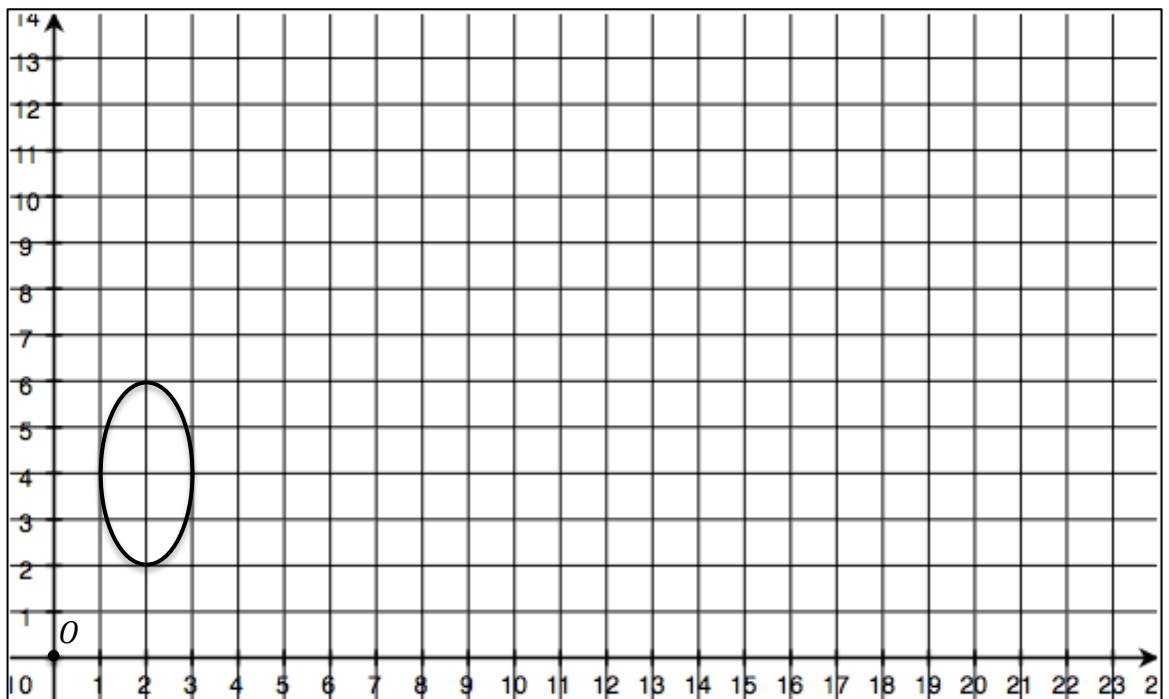
Date: _____

GUIDED PRACTICE:

Dilate by a scale factor of 2



Dilate by a factor of 2.



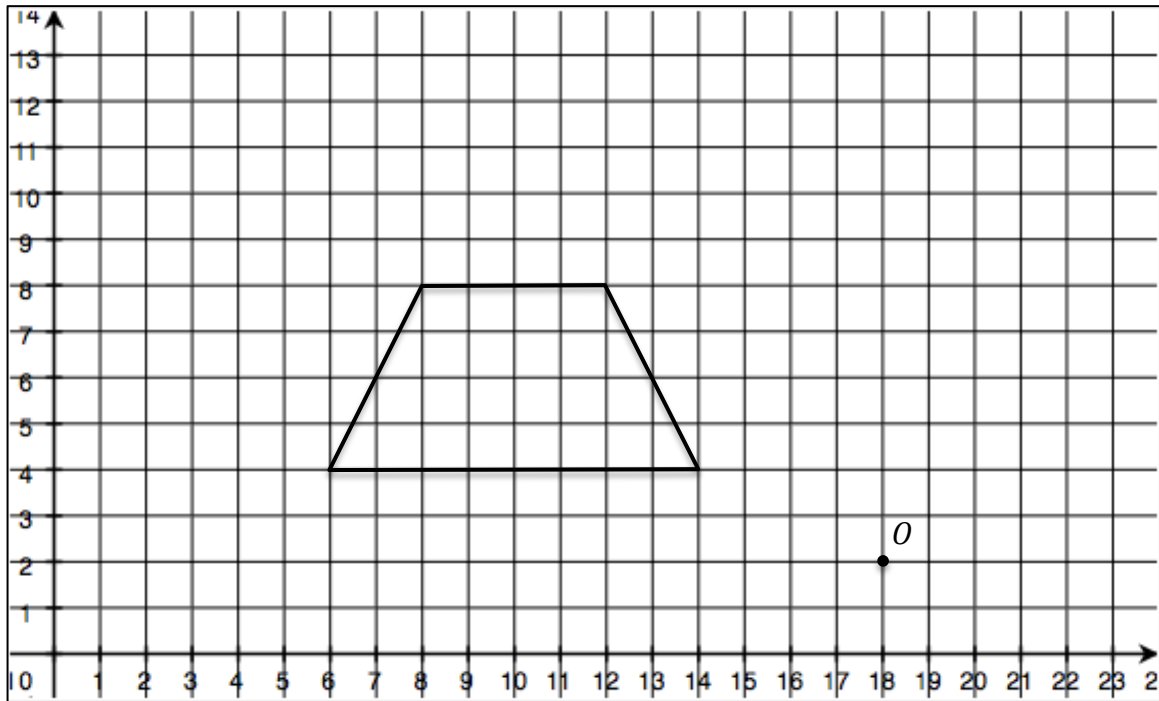
NAME: _____

Math _____, Period _____

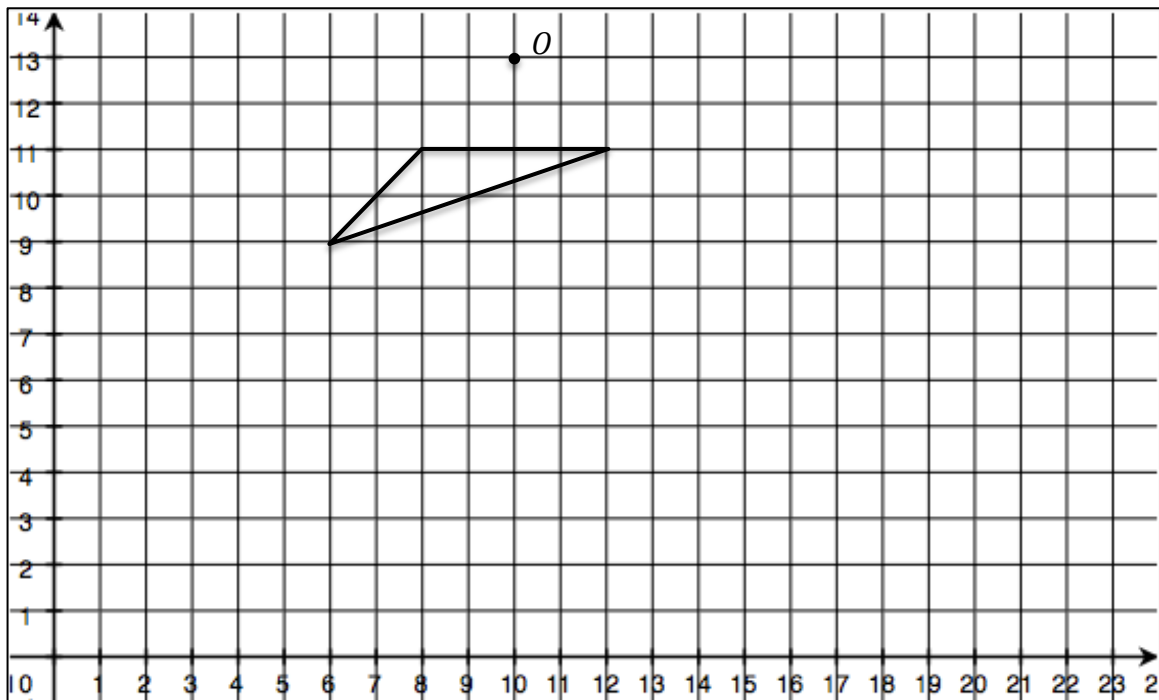
Mr. Rogove

Date: _____

Dilate by a scale factor of $\frac{3}{2}$



Dilate by a scale factor of $\frac{5}{2}$



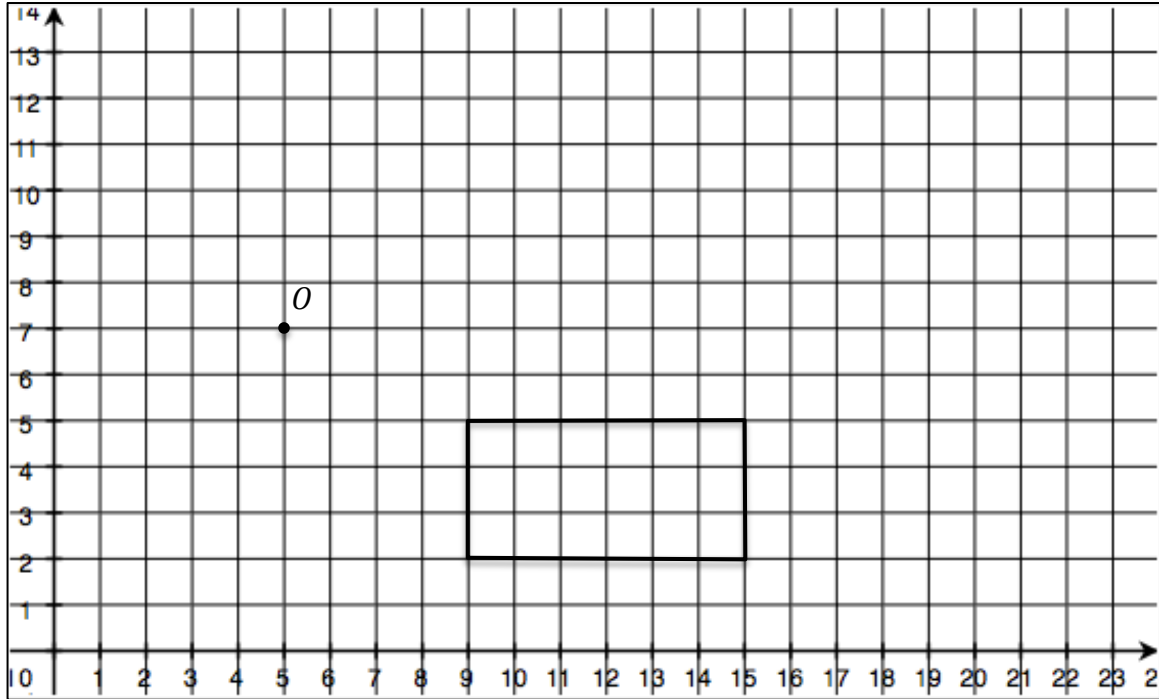
NAME: _____

Math _____, Period _____

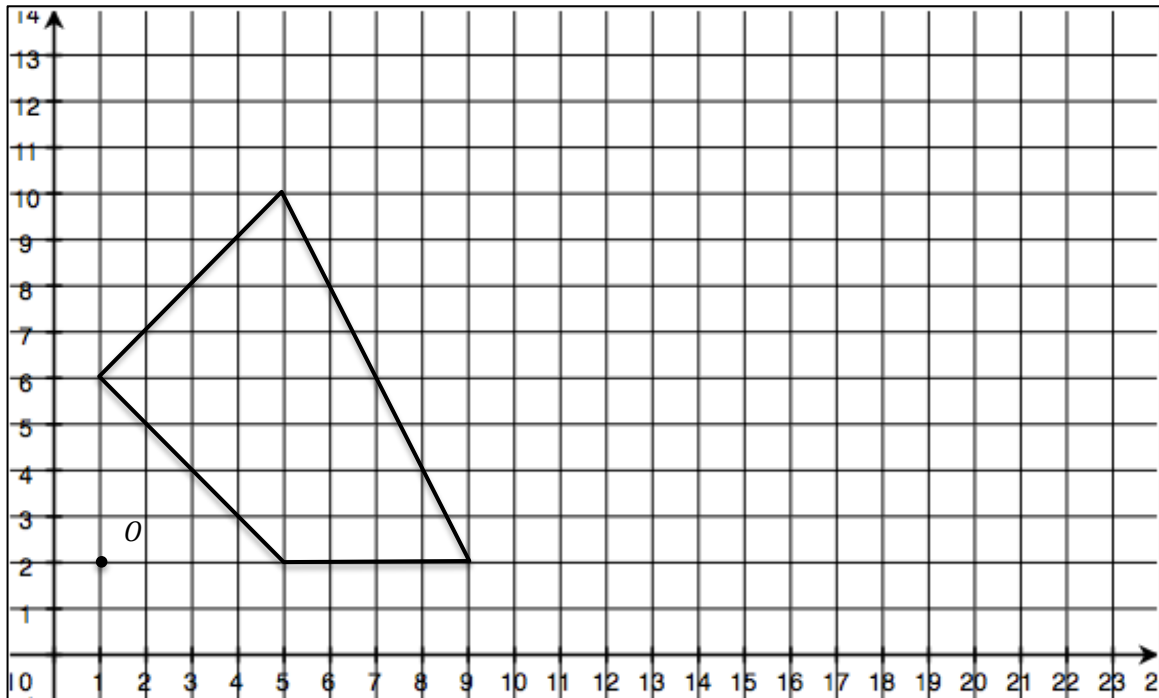
Mr. Rogove

Date: _____

Dilate by a scale factor of $1/2$.



Dilate by a scale factor of $3/4$.



NAME: _____

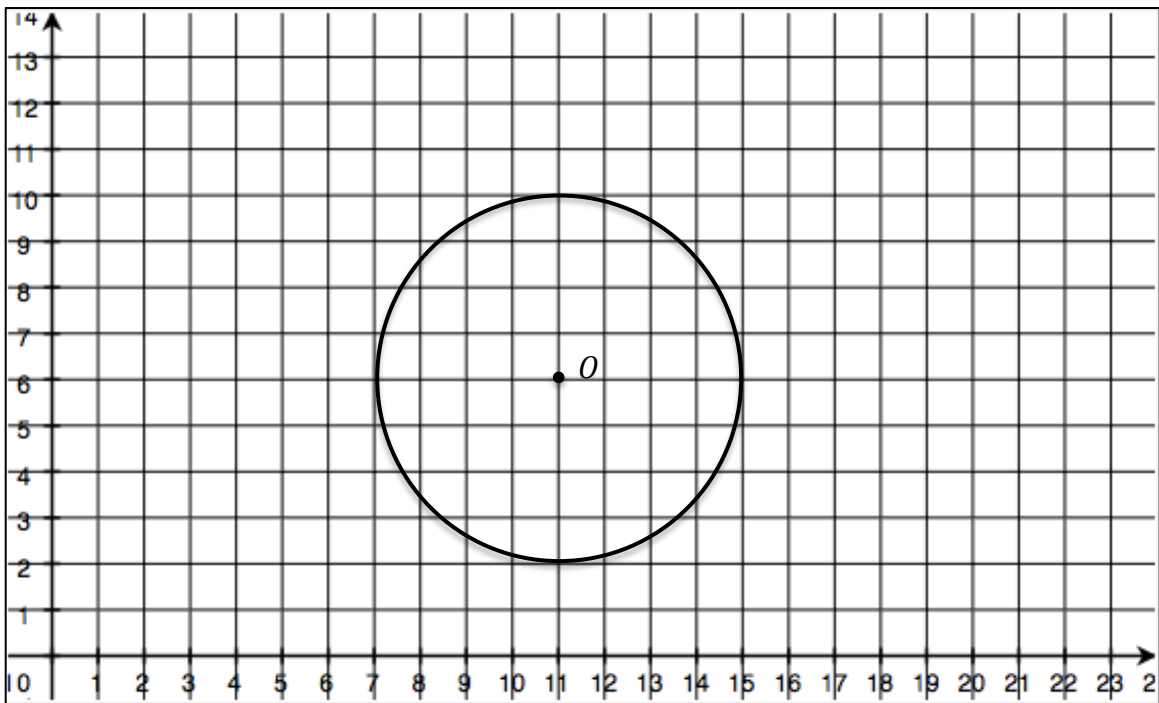
Math _____, Period _____

Mr. Rogove

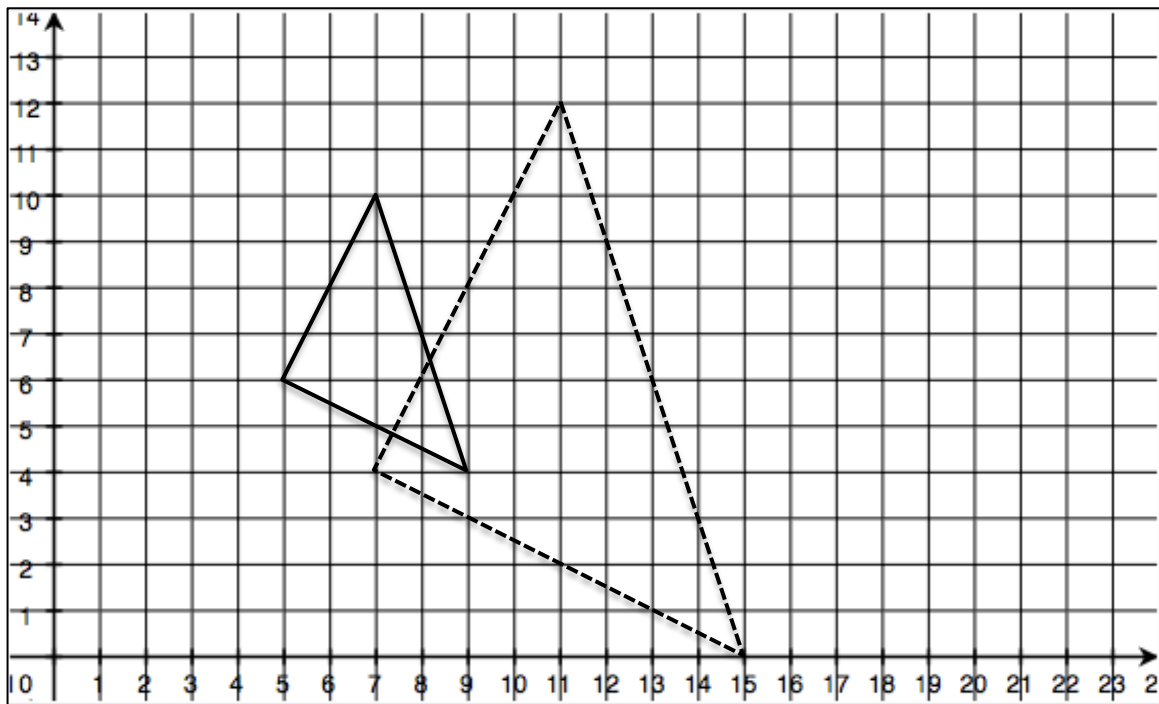
Date: _____

INDEPENDENT PRACTICE:

Dilate by a scale factor of $1/2$.



Find the center and identify the scale factor. (dashed triangle is DILATED shape)



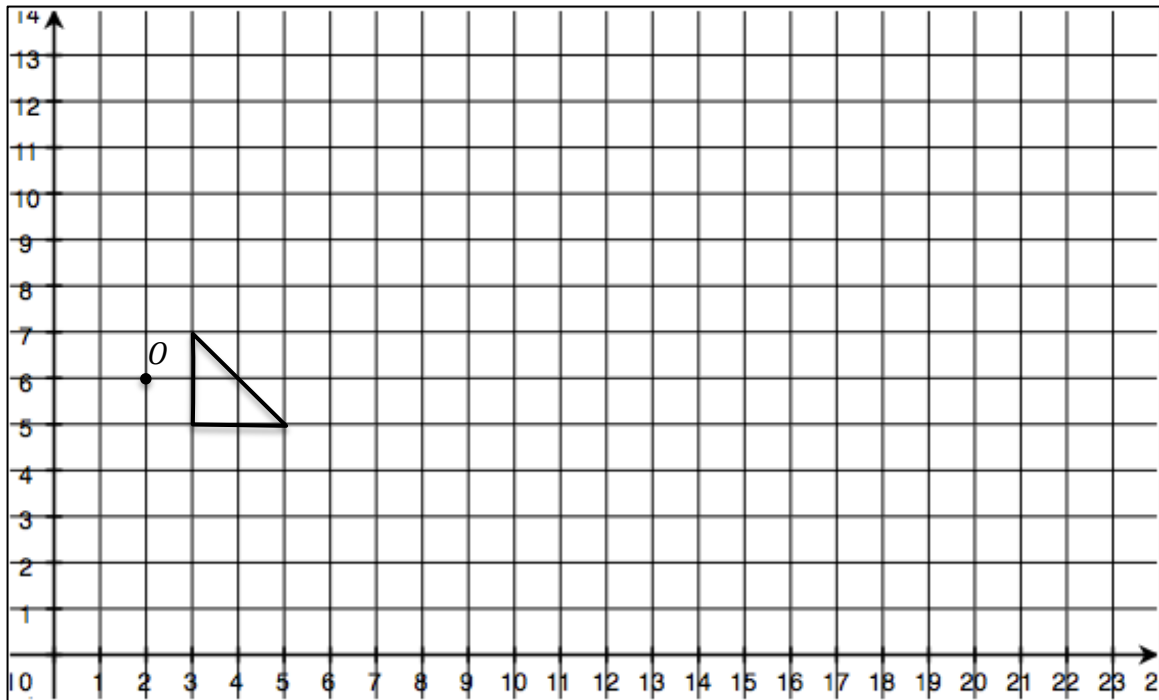
NAME: _____

Math _____, Period _____

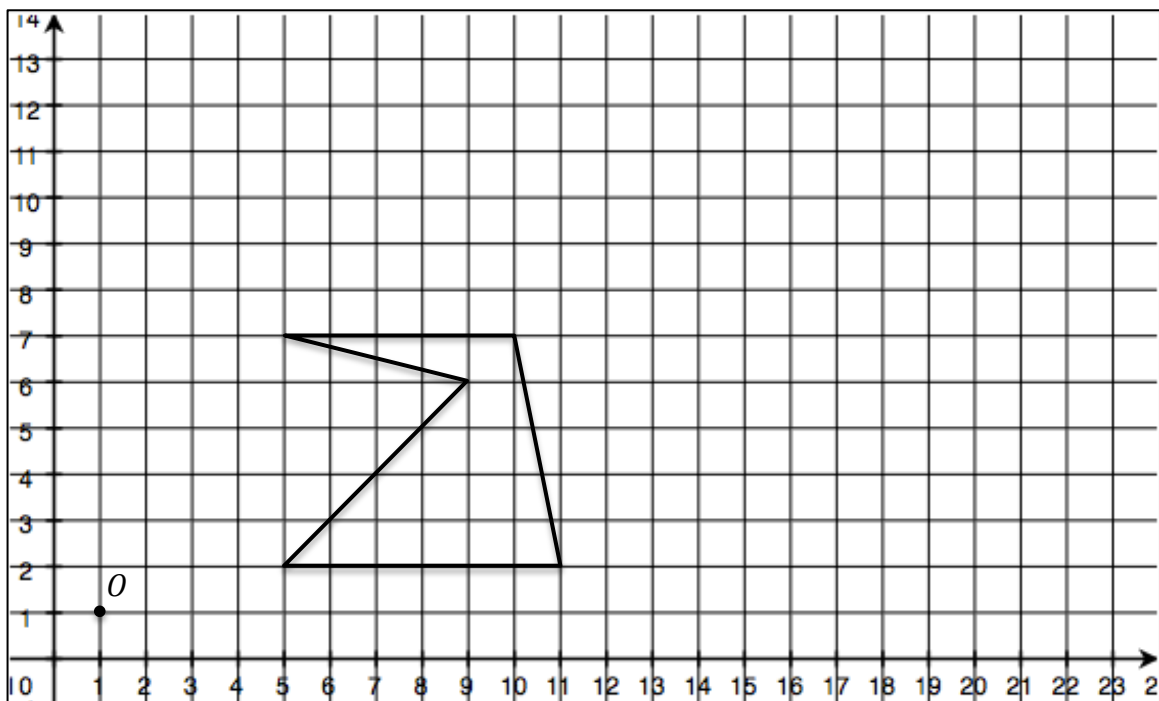
Mr. Rogove

Date: _____

Dilate by a scale factor of 4.



Dilate by a scale factor of 2.



NAME: _____

Math _____, Period _____

Mr. Rogove

Date: _____

ACTIVATING PRIOR KNOWLEDGE:

We know how to draw dilations.

CLOSURE:

If you dilate a shape by a scale factor of 4, what would the scale factor need to be to bring the dilated figure back to its original size?

TEACHER NOTES:

Do visual pattern #31