

# EOC Review: Unit 1 Transformations (CW)

Name: key  
Period: \_\_\_\_\_ Date: \_\_\_\_\_



1. The rule  $(x, y) \rightarrow (x + 8, y - 12)$  is applied to a figure.

a. Find the image of the point  $F(10, 3)$ .

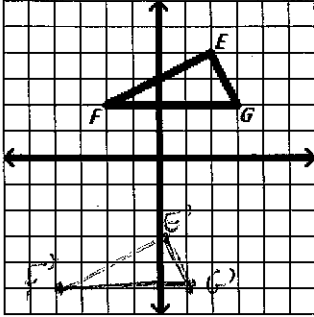
$(18, -9)$

b. Find the pre-image of the point  $G'(10, 3)$ .

$(2, 15)$

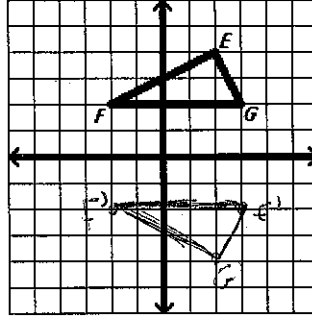
**DRAW** the image and write an algebraic **RULE** for the transformation.  
Don't forget to **LABEL** the vertices of the image!

2. Translate left 2 and down 7.



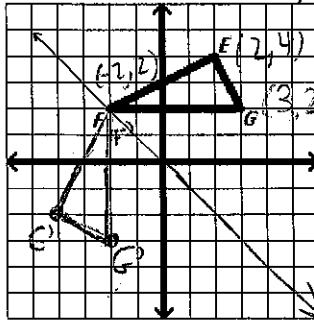
$(x, y) \rightarrow (x - 2, y - 7)$

3. Reflect across the x-axis.



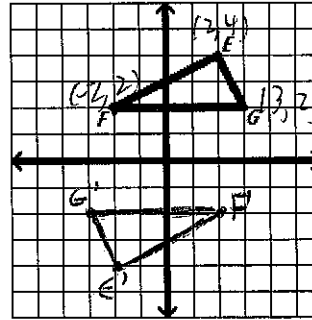
$(x, y) \rightarrow (x, -y)$

4. Reflect across the line  $y = -x$ .



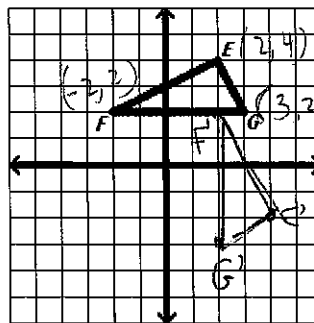
$(x, y) \rightarrow (-y, -x)$

5. Rotate 180° around the origin.



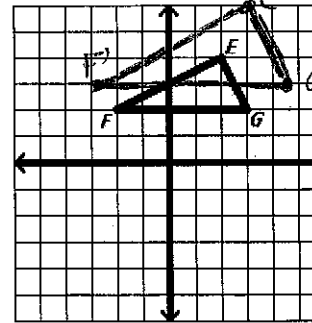
$(x, y) \rightarrow (-x, -y)$

6. Rotate 90° clockwise around the origin.



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

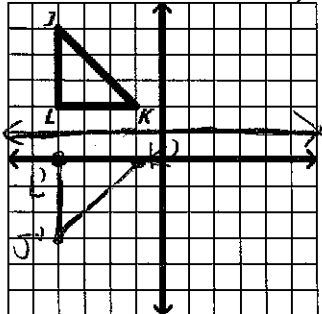
7. Dilate from the origin by a scale factor of  $\frac{3}{2}$



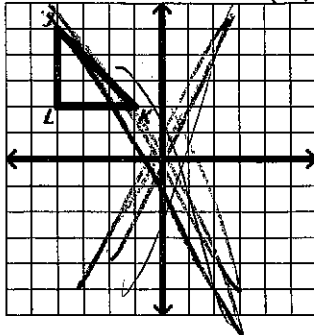
$(x, y) \rightarrow (\frac{3}{2}x, \frac{3}{2}y)$

**DRAW** the image. Don't forget to **LABEL** the vertices of the image!

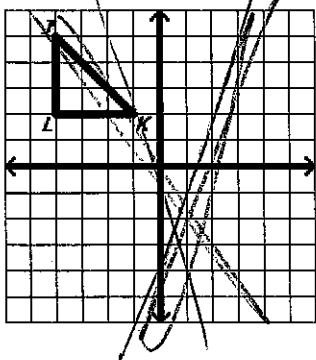
8. Reflect across the line  $y = 1$ .



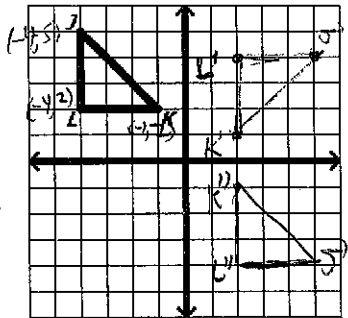
9. Rotate  $180^\circ$  around  $(-1, 3)$



10. Dilate from  $(2, 5)$  by a scale factor of  $\frac{4}{3}$



9. Rotate  $90^\circ$  clockwise around the origin, then reflect  $\Delta J'K'L'$  across the  $x$ -axis.

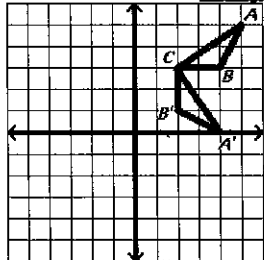


You are only required to draw  $\Delta J''K''L''$  but you might find it helpful to draw  $\Delta J'K'L'$  also.

**Describe (in words) the transformation that maps  $\Delta ABC$  onto  $\Delta A'B'C'$ .**

**Make sure to fully describe the transformation (state the center of rotation, etc.)**

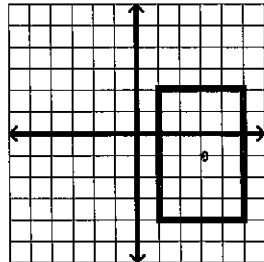
10



Rotation  $90^\circ$  CW about  $(2, 3)$

11.

13.

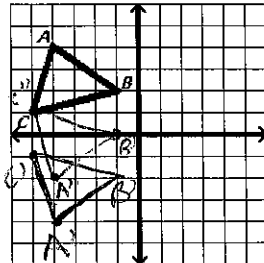


Fill in the blanks to describe transformations that would map this rectangle onto itself:

- Reflect across the line  $y = -1$
- Reflect across the line  $x = 3$
- Rotate  $180^\circ$  around the point  $(3, -1)$

12

14.



a. Draw the result of the following transformations:  
Reflect  $\Delta ABC$  across the  $x$ -axis, then translate  $\Delta A'B'C'$  up 2 units.  
(You are only required to draw the final triangle:  $\Delta A''B''C''$ )

b. Describe a single transformation that maps  $\Delta ABC$  onto  $\Delta A''B''C''$ .

Reflection about  $y = 1$