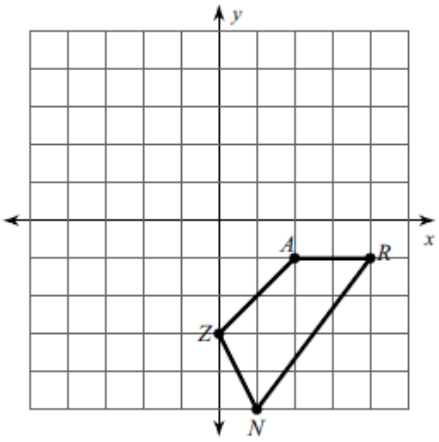
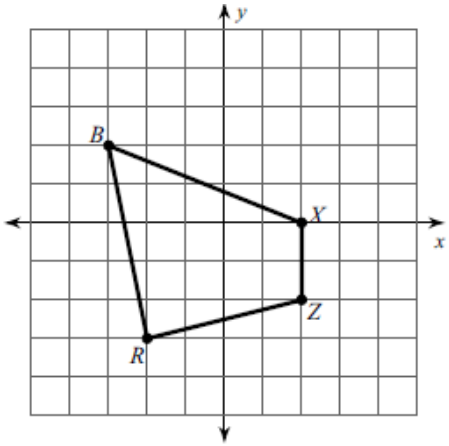
Unit 12 Review Mixed Practice Name: _____ Period: _____

Graph the image of the figure using the transformation given.

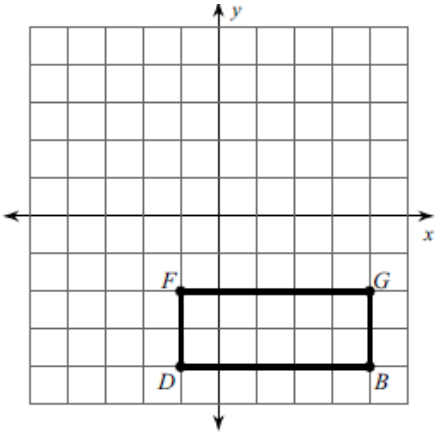
1. Rotate 180° about the origin



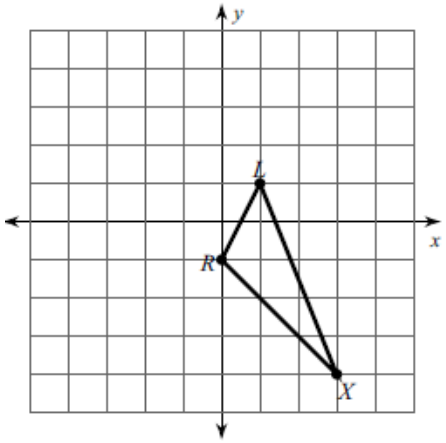
2. Translate the figure up 5 and left 2.



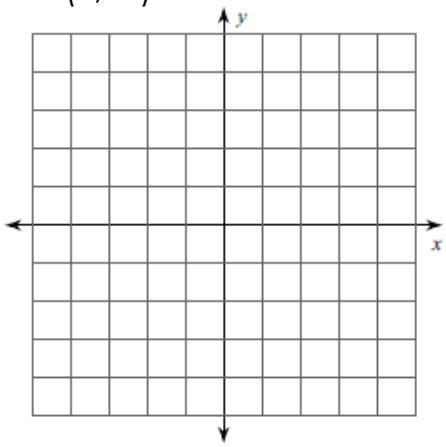
3. Reflection across x = 1



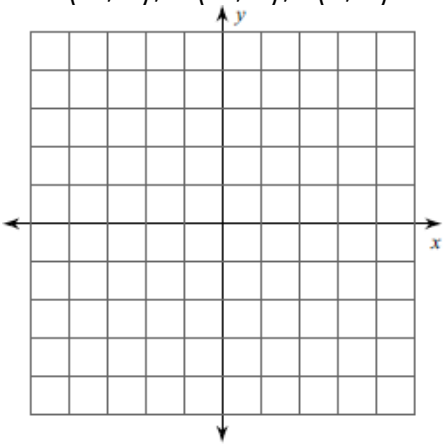
4. Reflection across y = -2



5. Reflection across the y-axis
N(-1, -2), I(-1, -1), G(4, -3), F(4, -4)



6. Rotate 270° counterclockwise
K(-5, 4), D(-1, 5), L(0, 3)



Find the coordinates of the vertices of each figure after the given transformation.

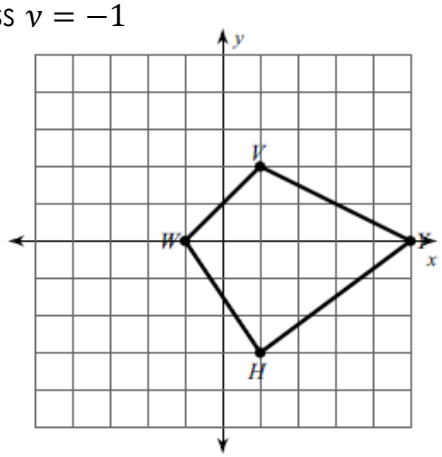
7. Reflection across $y = -1$

W'(_____, _____)

V'(_____, _____)

Y'(_____, _____)

H'(_____, _____)

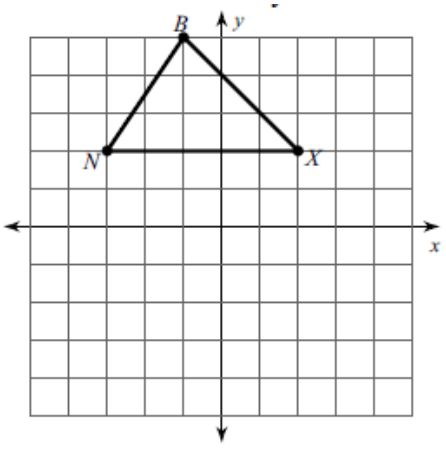


8. Reflection across $x = -2$

N'(_____, _____

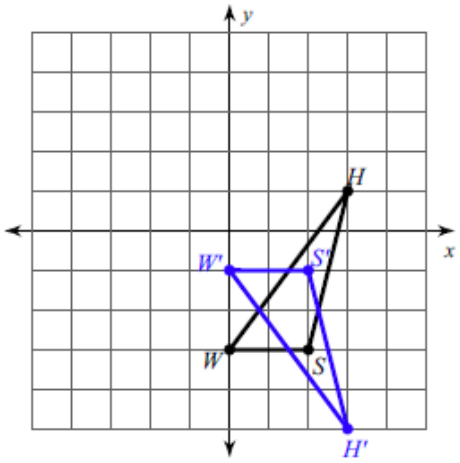
B'(_____, _____

X'(_____, _____

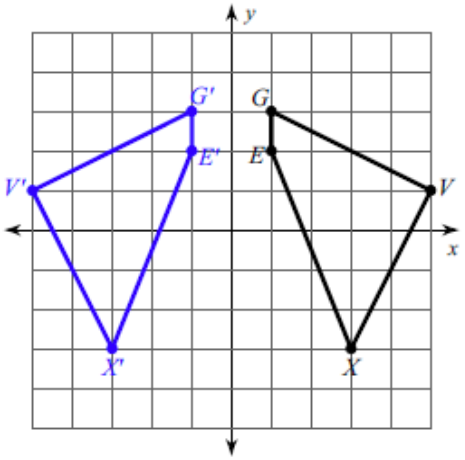


Identify the following transformations and write the rule.

9.

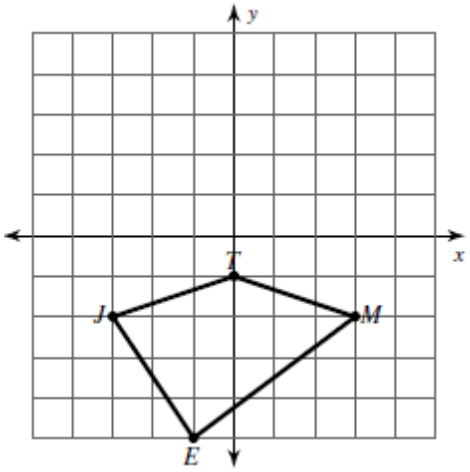


10.

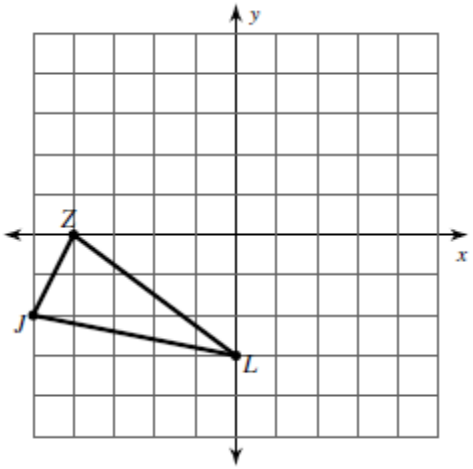


Graph the image of the figure using the transformation given and write the new points.

11. Translation: 2 units right and 4 units up



12. Rotation: 90° counterclockwise



Find the coordinates of the vertices of each figure after the given transformation.

13. Rotation: 180° about the origin

E(2, -2) J(1, 2) R(3, 3) S(5, 2)

14. Translation: 7 units right and 2 units down

J(-3, 1) F(-2, 3) N(-2, 0)

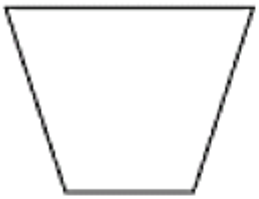
15. Translation: 5 units left and 3 units up

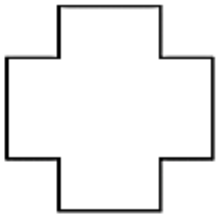
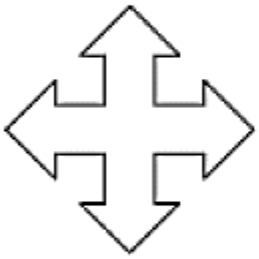
S(-3, 3) C(-1, 4) W(-2, -1)

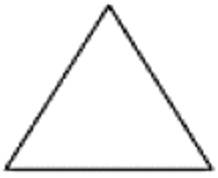
16. Draw the lines of symmetry (mirror lines) for each picture below:

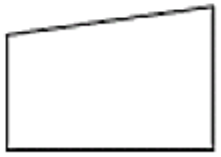
a)  b)  c)  d) 

17. For each of the following identify the amount of degrees the figure needs to turn to be on top of itself:



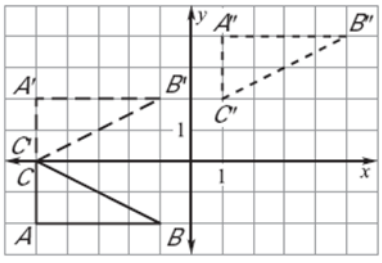



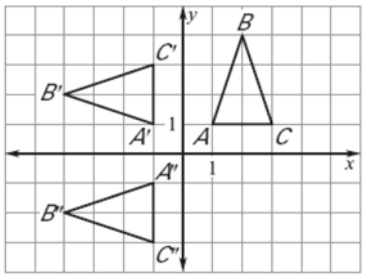


For the next part you will identify the two transformations that took place **Remember order matters:

18.

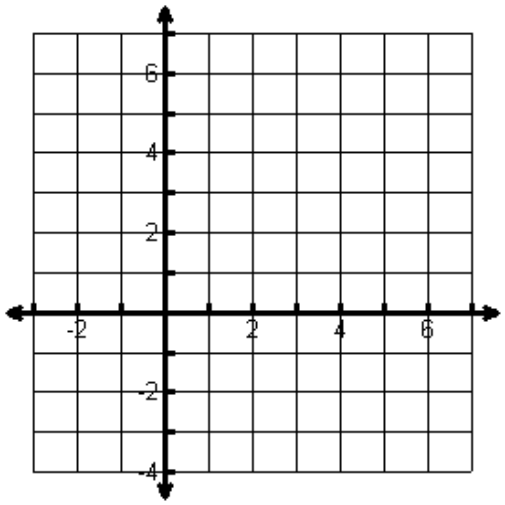


19.

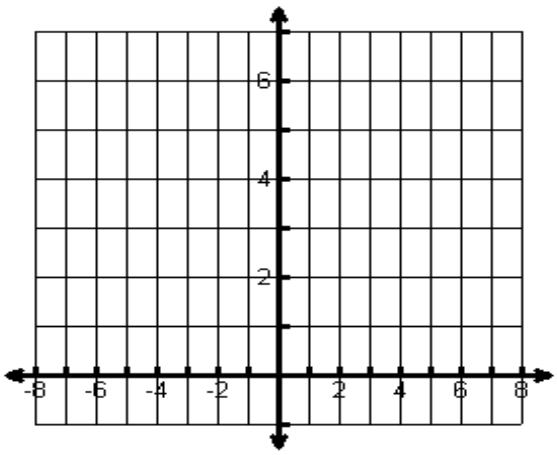


The vertices of ΔABC are A(2,4), B(7,6), and C(5,3). Graph the image of ΔABC & each transformation.

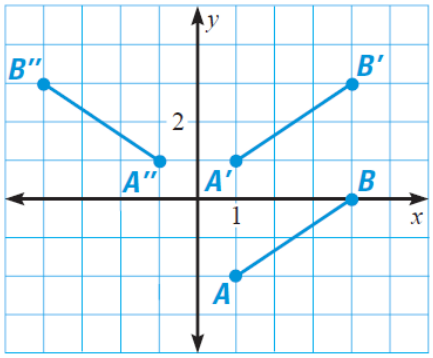
20. Translation: (x – 4, y – 3)
Reflection: across the x-axis



21. Reflection: across the y-axis
Translation: (x + 2, y)



In the diagram, AB is the pre-image of a combination.



22. Which segment is a translation of AB?

23. Which segment is a reflection of A'B'?

24. Name the line of reflection.

25. Write a rule to describe the translation.