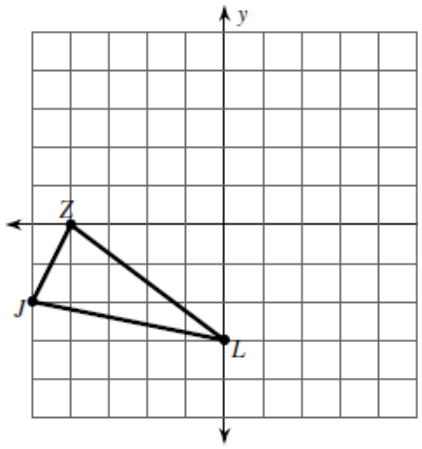
Day 6: Quiz Review

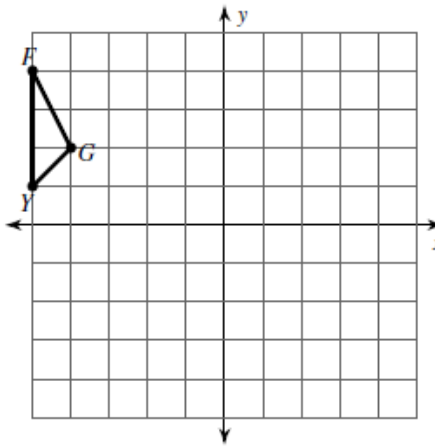
Graph the image of the figure using the transformation given AND write the algebraic rule.

1) rotation 90° counterclockwise about the origin



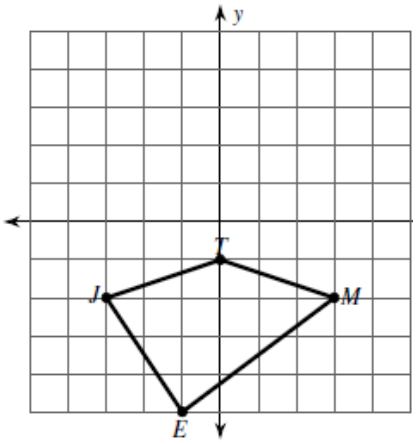
Algebraic Rule:

2) translation: 4 units right and 1 unit down



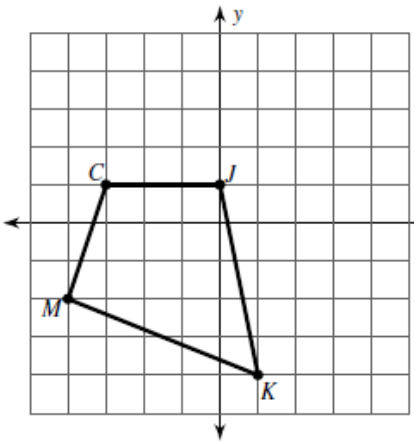
Algebraic Rule:

3) translation: 1 unit right and 1 unit up



Algebraic Rule:

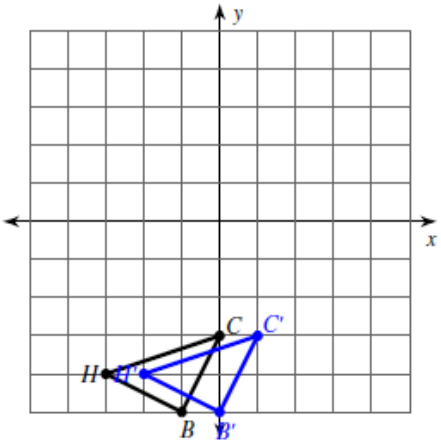
4) reflection across the x-axis



Algebraic Rule:

Write a verbal description and a motion rule, as requested, to describe each transformation.

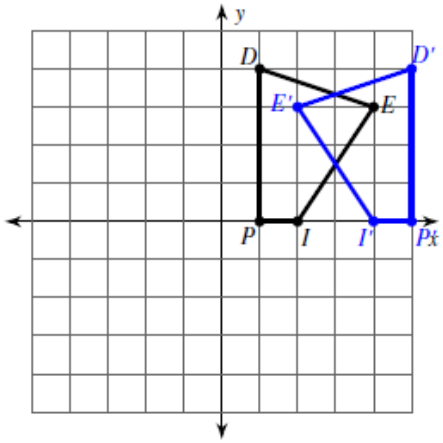
5)



Description:

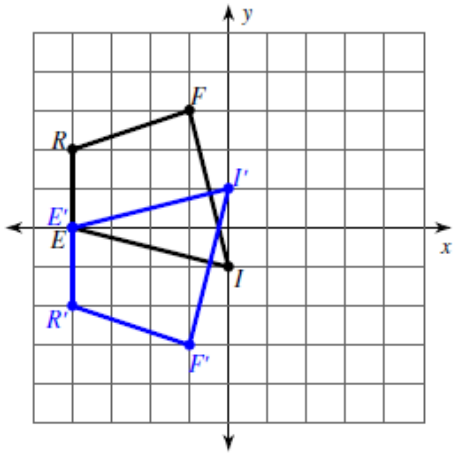
Algebraic Rule:

6)



Description:

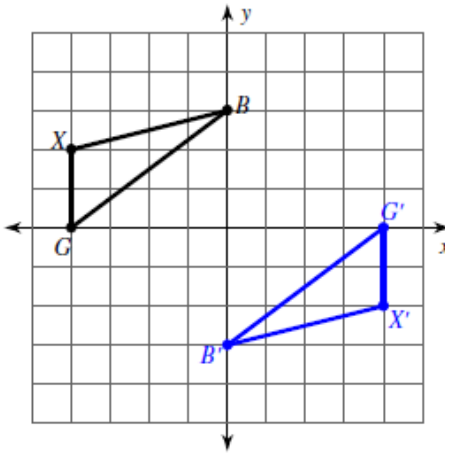
7)



Description:

Algebraic Rule:

8)

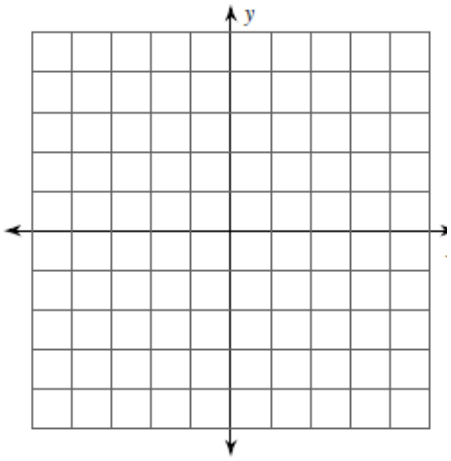


Description:

Algebraic Rule:

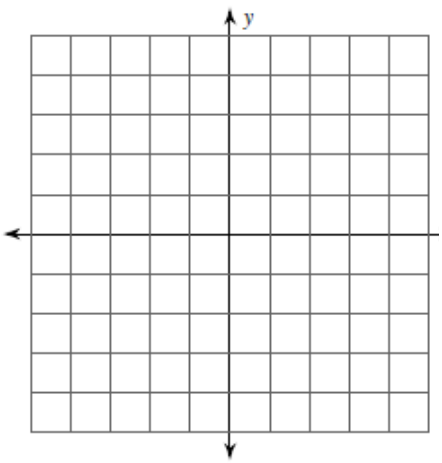
Graph the image of the figure using the transformation given and write the algebraic rule.

9) rotation 90° clockwise about the origin
$B(-2, 0), C(-4, 3), Z(-3, 4), X(-1, 4)$



Algebraic Rule:

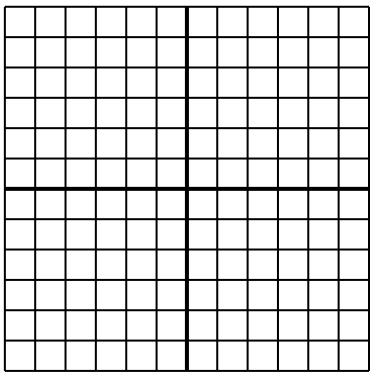
10) reflection across $y = x$
$K(-5, -2), A(-4, 1), I(0, -1), J(-2, -4)$



Algebraic Rule:

11. Use ΔABC with A(2,-2), B(3,1), and C(1,2)

ΔABC is reflected over y = -x and moved up 2

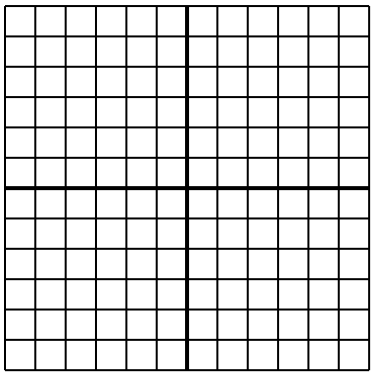


Algebraic Rule: _____

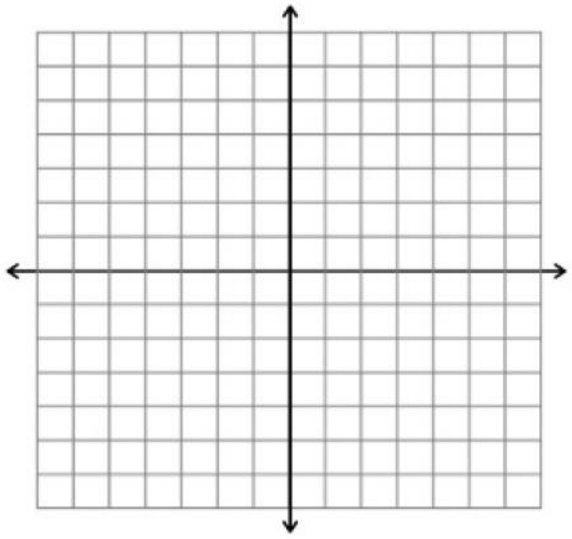
12. If $\Delta D'E'F'$ has coordinates D' (-3, 1), E'(4, 2) and F'(2, -3) was the result of a translation with rule (x – 2, y + 3),

what are the coordinates for the preimage, ΔDEF ?

D _____ E _____ F _____



13. Graph and label a triangle with vertices A (-1, 5), B (-4, 1), and C (-5, 6). Apply a translation with the rule (x, y) -----> (x – 1, y – 2). Label triangle A'B'C'. Then reflect triangle A'B'C' over the line y = x. Label triangle A''B''C''. Derive the algebraic rule that maps the pre-image to the final image.



Algebraic Rule: (x, y) → (_____, _____)

14. The vertices of a triangle are $P(-7, -1)$, $Q(2, 1)$, and $R(-5, 3)$. Name the algebraic rule for the composition of reflecting in the line $y = x$, then translating left 7 and down 4.

A. (x, y) -> (y – 7, x – 4)

B. (x, y) -> (y – 4, x – 7)

C. (x, y) -> (x – 7, y – 4)

D. (x, y) -> (x – 4 , y – 7)