Given ΔABC has vertices at A(5,0), B(2, -5), C(0,3)

a. Find the vertices of the image of ΔABC under $r_{(90°,O)}$

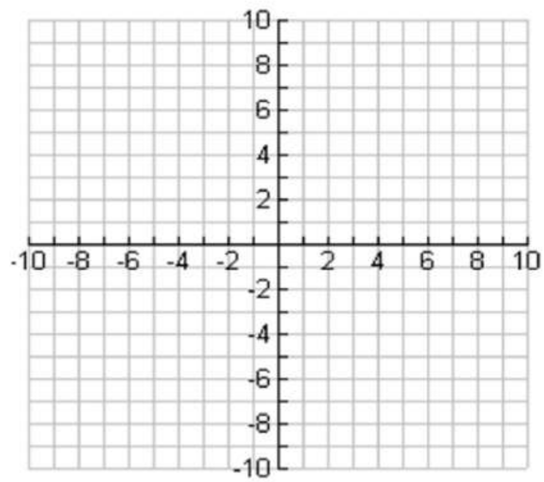
A'(,) B'(,) C'(;)

.

b. Find the image of the point B under a $R_{y=x}$

c. Find the coordinates of the image of ΔABC under the transformation defined by $T_{(-4,3)}$

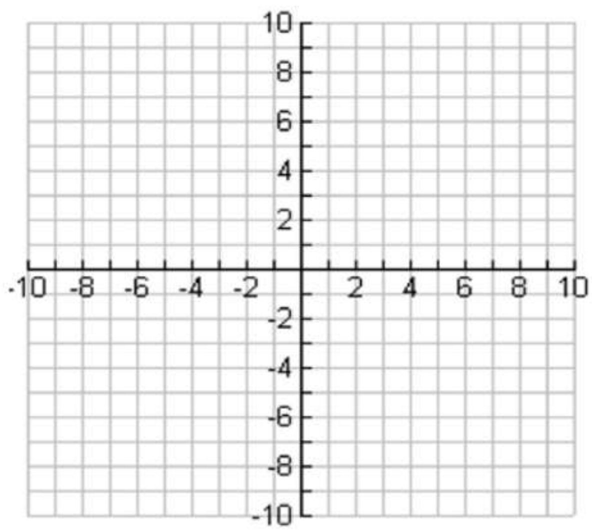
A'(____,____) B'(____,____) C'(____,____)



Given ΔBAD with B(-4,3), A(1,5), and D(-1,-4) use the following transformation $(R_{y=-2} \circ R_{x-axis})$

B'(,) A'(,) D'(,)

B"(,) A"(,) D"(,)

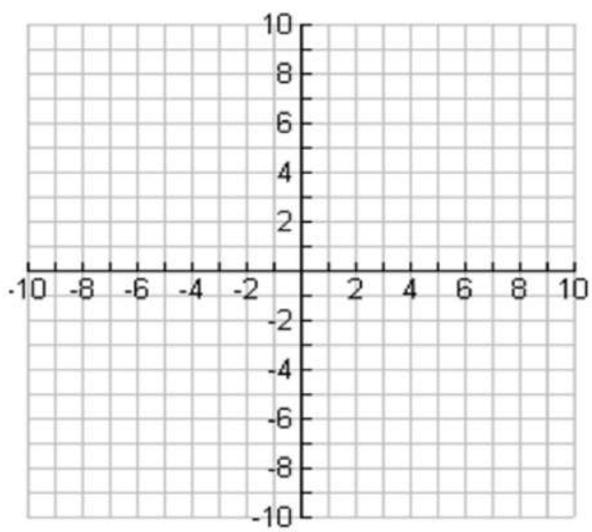


Given ΔLAR L(-4,-2), A(-2,2), and

R(3,0) $(T_{(0,-2)} \circ R_{y=x})$

L'(,) A'(,) R'(,)

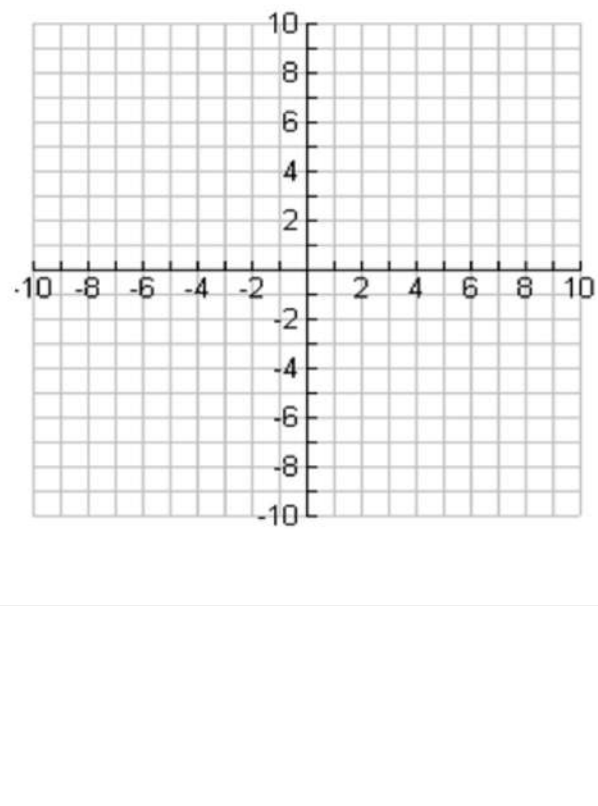
L''(,) A''(,) R''(,)



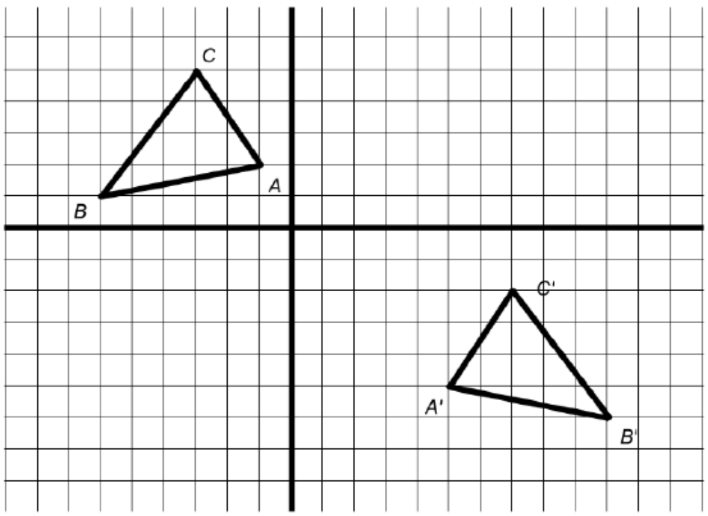
Given quadrilateral MATH with M(-4, -2), A(-1, 2), T(2,3), and H(4, -4), $(r_{(180,O} \circ R_{x=2})$

M'(,   ) A'(,   ) T'(,   )
H'(,   )

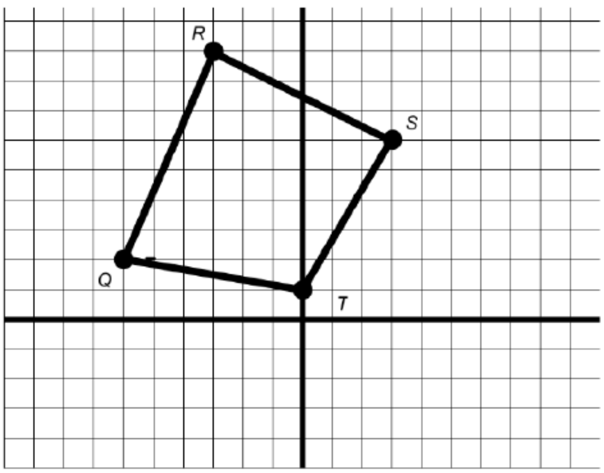
M"(,   ) A"(,   ) T"(,   )
H"(_____,_____)



<u>Describe</u> and write a rule for a composite transformation that will map ΔABC onto $\Delta A'B'C'$.



Find the coordiantes of the vertices for each image



a. $R_{y=-x}(QRST)$

Q'______

R'_______

S'_______

T'_______

b. $r_{(270°,O)}(QRST)$

Q'______

R'_______

S'_______

T'_______

c. $T_{\langle -5,-8\rangle}(QRST)$

Q'______

R'_______

S'_______

T'_______

d. $(R_{y-axix} \circ T_{\langle 4,0\rangle})(QRST)$

Q'______

R'_______

S'_______

T'_______

A reflection over x = 5 followed by a reflection over x = -8 result in a translation in the direction of

UP DOWN LEFT RIGHT a total distacne __________

A reflection over x = 6 followed by a reflection over x = -4 result in a translation in the direction of

UP DOWN LEFT RIGHT a total distacne of ________________

If you wanted to translate a shape to the up 6 units, you could reflect over y = -1 and then y = ________.

If you want to translate a shape right 18 units, you could reflect over x = -3 and then x = ____________.

If you want to translate a shape down 14 units, you could reflect over y= ___ and then y = 4.

Suppose m is the line x = 4 and n is the line x = -1. Write the following composition as one translation $R_m \circ R_n$.

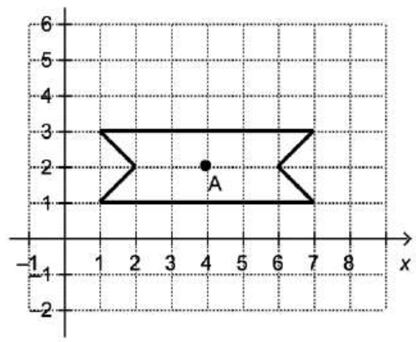
$R_m \circ R_n = T_{\langle\ \rangle}$

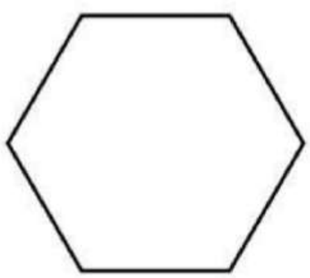
Find a translation that has the same effect as the composition of translations below.

$T_{\langle 6,-4\rangle}(x, y)$ followed by $T_{\langle -3,5\rangle}(x, y)$

The rule $T_{4,-5}$ is used for point (-3, 4). Where is the translated point in the coordinate system?

Identify any reflection or/and rotational symmetry. On either, draw the line(s) of symmetry and describe the angle(s) of rotation.





Give the coordinates of the image of the point (6, -3) under the given transformation.

Transformation	New Coordinates
$r_{(90°,O)}$	
$R_{y=axis}$	
$(R_{y=3} \circ R_{y=-2})$ What single rule would work as well?	
$(r_{(90°,O)} \circ r_{(180°,O)}$	
$T_{(-4.-2)}$	
$(R_{y=3}) \circ T_{(3,-1)}$	