

Name KEY!

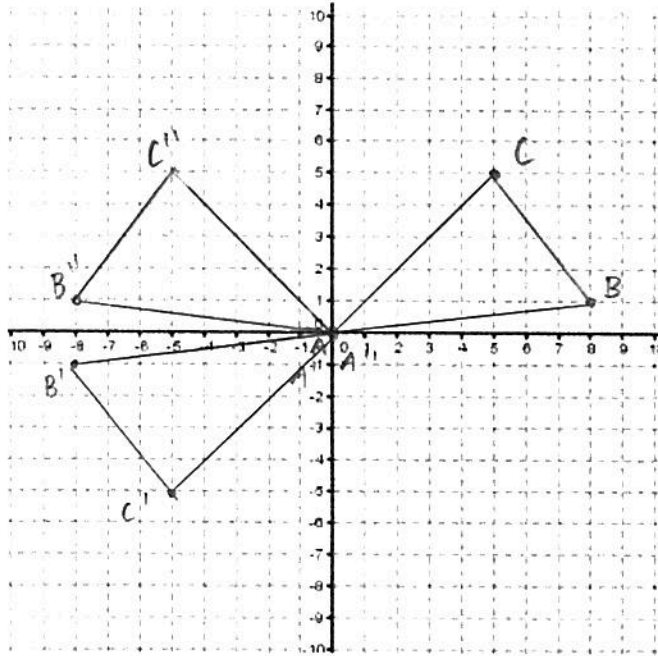
### Compositions of Transformations Homework – Go for it!

Directions: Plot the composition of transformations on each graph and fill in the chart.

1. Plot A(0,0), B(8,1), C(5,5)

$r_{x\text{-axis}} \circ R_{0,180^\circ}$

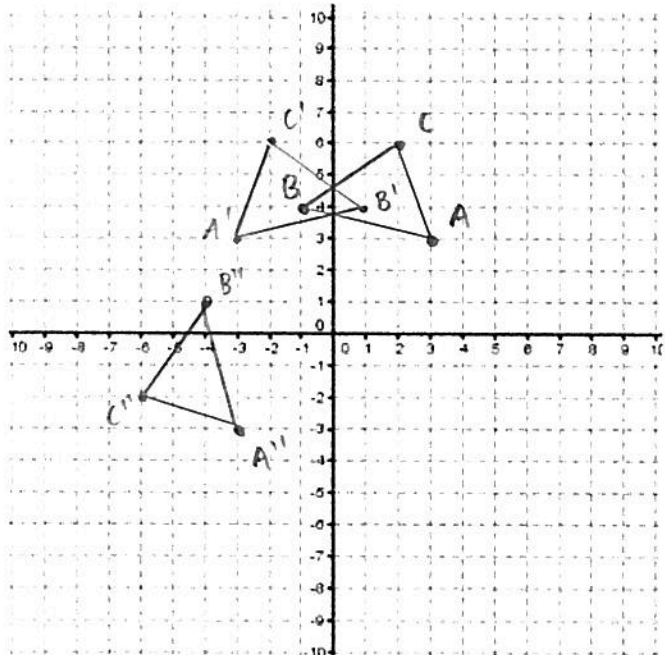
Order your Transformations:	Coordinates:
1) $R_{0,180^\circ}$	$A' (0,0)$ $B' (-8,-1)$ $C' (-5,-5)$
2) $r_{x\text{-axis}}$	$A'' (0,0)$ $B'' (-8,1)$ $C'' (-5,5)$



2. Plot A(3,3), B(-1,4), C(2,6)

$R_{0,90^\circ} \circ r_{y\text{-axis}}$

Order your Transformations:	Coordinates:
1) $r_{y\text{-axis}}$	$A' (-3,3)$ $B' (1,4)$ $C' (-2,6)$
2) $R_{0,90^\circ}$	$A'' (-3,-3)$ $B'' (-4,1)$ $C'' (-6,-2)$



3. Find the coordinates of  $r_{y\text{-axis}} \circ r_{y=x}(A)$  if the coordinates of  $A$  are  $(6, 1)$ .

$$A' (1, 6)$$

$$A'' (-1, 6)$$

4. Find the coordinates of the image of  $(2, 4)$  under the transformation  $r_{y\text{-axis}} \circ T_{3, -5}$ .

$$(5, -1)$$

$$(-5, -1)$$

5. Plot  $D(9, -3)$ ,  $E(6, -7)$ ,  $F(3, -3)$ ,  $G(5, -1)$

$$r_{x=2} \circ R_{0, 180} \circ T_{-10, -1}$$

Order your Transformations:	Coordinates:
1) $T_{(-10, -1)}$	$D' (-1, -4)$ $E' (-4, -8)$ $F' (-7, -4)$ $G' (-5, -2)$
2) $R_{0, 180}$	$D'' (1, 4)$ $E'' (4, 8)$ $F'' (7, 4)$ $G'' (5, 2)$
3) $r_{x=2}$	$D''' (3, 4)$ $E''' (0, 8)$ $F''' (-3, 4)$ $G''' (-1, 2)$

