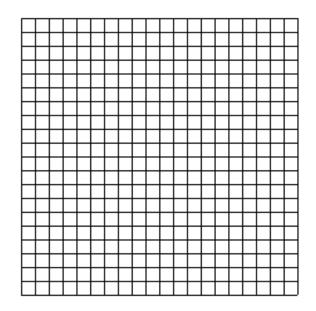
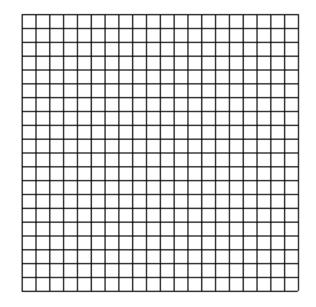
Use of the grids is optional for solving the following problems.





- What is the image of point A(4,2) after the composition of transformations defined by 1.  $R_{90^{\circ}} \circ r_{v=x}$ ?
- $(1) \quad (-4,2) \qquad \qquad (2) \quad (4,-2) \qquad \qquad (3) \quad (-4,-2) \qquad \qquad (4) \quad (2,-4)$
- What is the image of point (1,1) under  $r_{y-axis} \circ R_{-90^{\circ}}$ ? 2.
  - (1) (1,1)

- (2) (1,-1) (3) (-1,1) (4) (-1,-1)
- The coordinates of JRB are J(1,-2), R(-3,6), and B(4,5). What are the coordinates of the 3. vertices of its image after the transformation  $T_{2,-1} \circ r_{v-axis}$ ?
  - (3,1),(-1,-7),(6,-6)(1)
- (3) (1,-3),(5,5),(-2,4)
- (2) (3,-3),(-1,5),(6,4)
- (4) (-1,-2),(3,6),(-4,5)
- If the coordinates of point *P* are (2,-3), then  $(R_{90^{\circ}} \circ R_{-180^{\circ}})(P)$  is: 4.

- $(1) \quad (-2,3) \qquad \qquad (2) \quad (-2,-3) \qquad \qquad (3) \quad (3,-2) \qquad \qquad (4) \quad (-3,-2)$

5.	Find the coordinates of $(r_{y=3} \circ r_{y=-x})(A)$	) if the coordinates of A are (6,1).
6.	Find the coordinates of the pre-image	e of (2,4) under the transformation $r_{y-axis} \circ T_{3,-5}$ .
7.	What is the image that results from th	his composition of transformations? $r_{x=-2} \circ R_{90^{\circ}}$ (-3,0)
8.	Find the coordinates of the pre-image	e of $N'(-1,3)$ under the composite $r_{y=4} \circ R_{270^{\circ}}$ .
9.	Which transformation is equivalent to  (1) a rotation  (2) a dilation	the composite line reflections $r_{y-axis} \circ r_{y=x}(AB)$ ?  (3) a translation  (4) a glide reflection
10.	Write a single translation that is equivalent to $T_{3,-1}$ followed by $T_{-5,5}$ .	