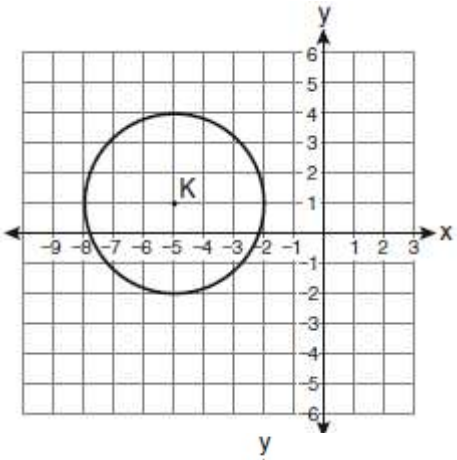
Name _____ Date _____

Mr. Schlansky Geometry

Mapping Shapes Onto Themselves

1. Circle *K* is shown in the graph below.
Which of the following transformations map circle K onto itself?



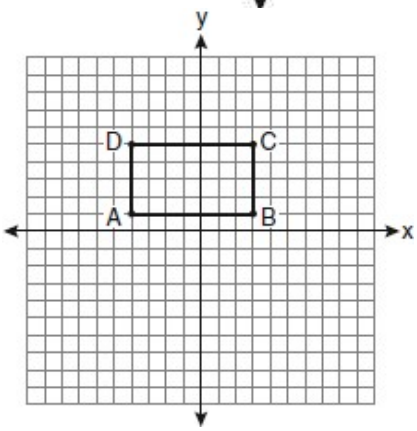
1) Reflection over the line $x-axis$

2) Reflection over the $y-axis$

3) Rotation of 90 centered at the origin

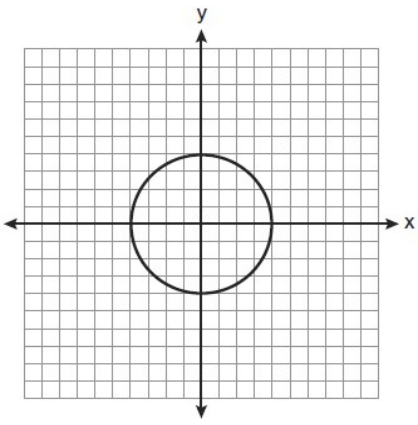
4) Rotation of 90 centered at K

2. On the set of axes below, Geoff drew rectangle *ABCD*.



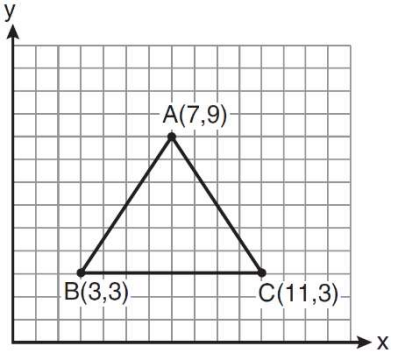
What of the following transformations would map the rectangle onto itself?
1) Reflection over the y axis
2) Reflection over the line $y = 3$
3) Rotation of 180 centered at the origin
4) Translation one unit to the right

3. In the diagram below, which transformation does *not* map the circle onto itself?



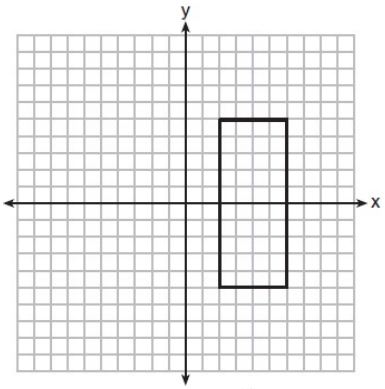
1) Rotation of 80 centered at the origin
2) Reflection over the line $y = x$
3) Rotation of 180 centered at (4,0)
4) Reflection over the line $x = 0$

4. The vertices of the triangle in the diagram below are $A(7,9)$, $B(3,3)$, and $C(11,3)$.
Which transformation will map ΔABC onto itself?



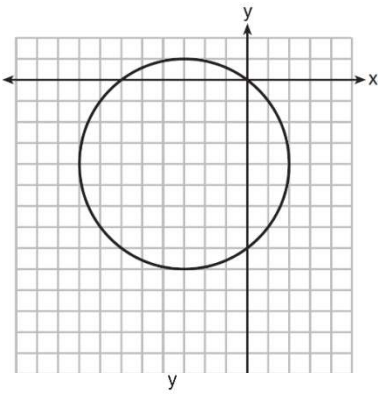
1) Rotation of 60 centered at (3,3)
2) Reflection over the line $y = 5$
3) Reflection over the line $x = 7$
4) Translation 3 units up

5. As shown in the graph below, the quadrilateral is a rectangle. Which transformation would *not* map the rectangle onto itself?
1) a reflection over the *x*-axis
2) a reflection over the line $x = 4$
3) a rotation of 180° about the origin
4) a rotation of 180° about the point $(4, 0)$



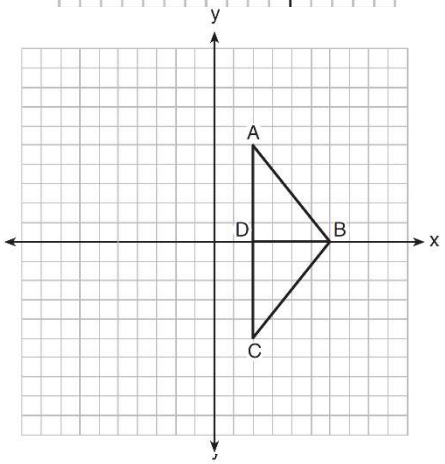
6. Which transformation does not map the circle in the diagram below onto itself?

1) Rotation of 90 centered at the origin
2) Reflection over the line $x = -3$
3) Rotation of 90 centered at $(-3, -4)$
4) Reflection over the line $y = -4$



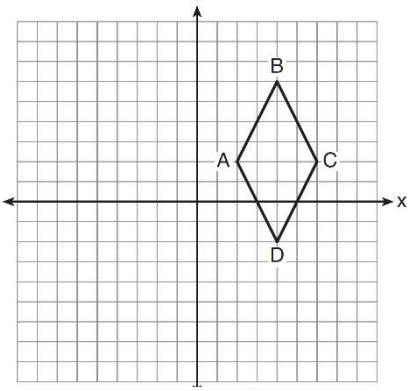
7. In the diagram below, quadrilateral ABCD is graphed.

Which transformation will map ABCD onto itself?
1) Reflection over the y-axis
2) Rotation of 180 centered at the origin
3) Reflection over the line $y = 0$
4) Rotation of 180 centered at (4,0)



8. Quadrilateral *ABCD* is graphed on the set of axes below.

Which transformation maps quadrilateral ABCD onto itself?
1) Reflection over the x-axis
2) Reflection over the y-axis
3) Reflection over $x = 2$
4) Reflection over $y = 2$



9. Triangle *ABC* is graphed on the set of axes below.
Which transformation maps $\triangle ABC$ onto itself?
1) Reflection over the x-axis
2) Reflection over $x = 2$
3) Reflection over $y = 2$
4) Reflection over $x = -2$