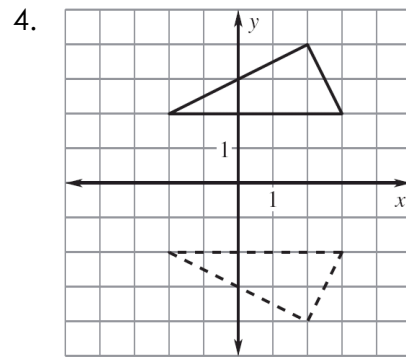
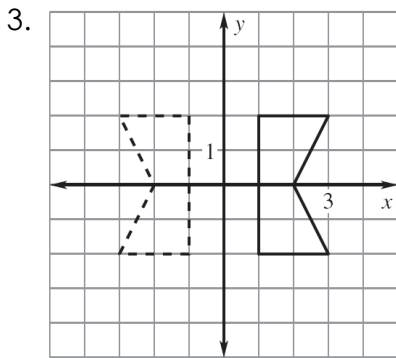
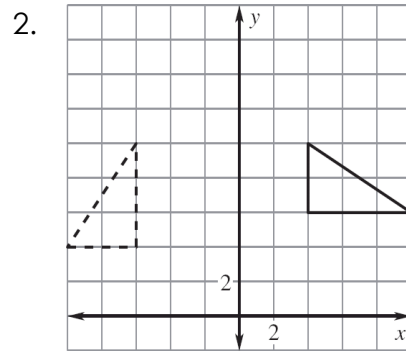
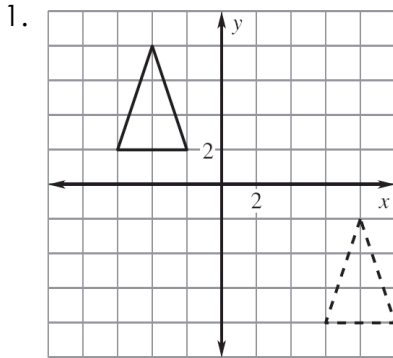


Transformation Worksheet

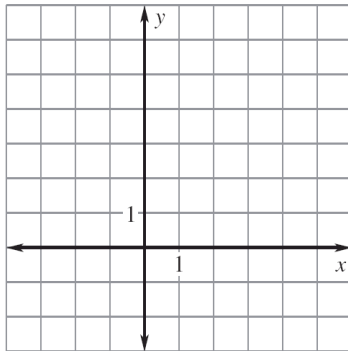
Geometry

Name: _____

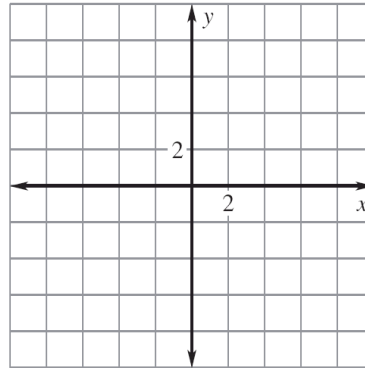
Name the type of transformation shown.



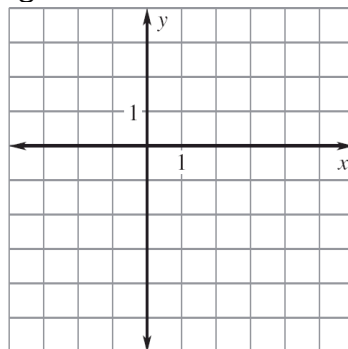
5. Figure ABC has vertices $A(-3, 3)$, $B(1, -1)$, and $C(0, 5)$. Sketch ABC and draw its image after the translation $(x, y) \rightarrow (x + 4, y + 2)$.



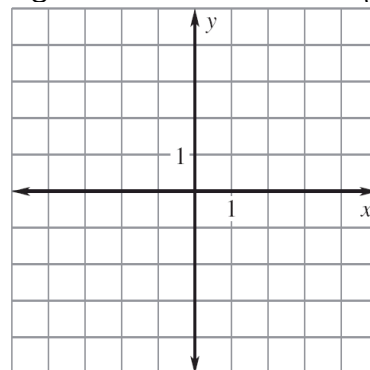
6. Figure ABC has vertices $A(4, 2)$, $B(2, 6)$, and $C(6, 6)$. Sketch ABC and draw its image after the translation $(x, y) \rightarrow (x - 6, y - 3)$.



7. Figure $ABCD$ has vertices $A(0, -5)$, $B(0, -2)$, $C(-3, 2)$, and $D(-2, -4)$. Sketch $ABCD$ and draw its image after the translation $(x, y) \rightarrow (x + 5, y + 1)$.



8. Figure $ABCD$ has vertices $A(3, -4)$, $B(4, -1)$, $C(3, -2)$, and $D(1, -3)$. Sketch $ABCD$ and draw its image after the translation $(x, y) \rightarrow (x - 6, y + 5)$.



Use coordinate notation to describe the translation.

9. 5 units to the right, 3 units down

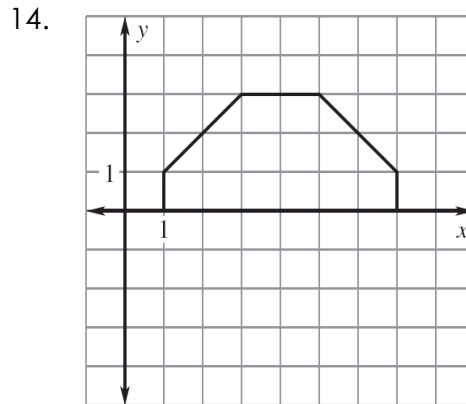
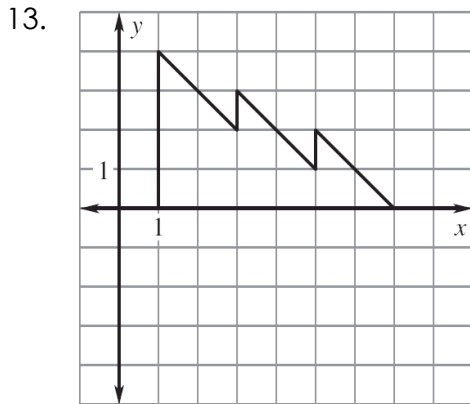
10. 9 units to the left, 7 units up

Complete the statement using the description of the translation.
In the description, points $(2, 3)$ and $(4, 2)$ are two vertices of a triangle.

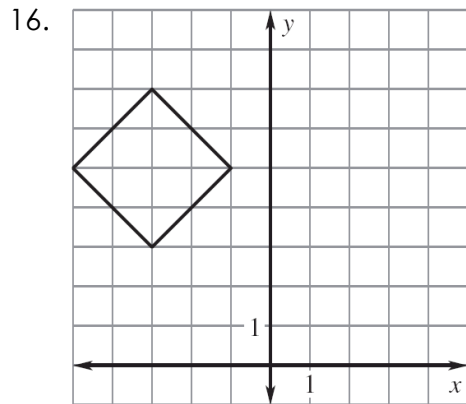
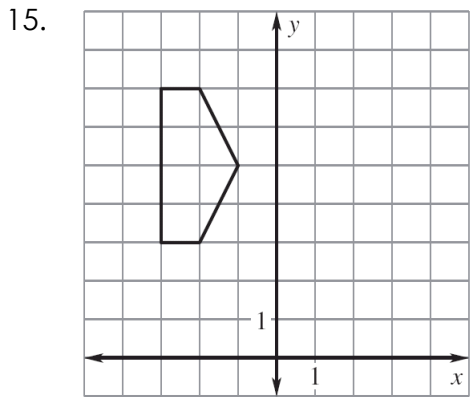
11. If $(2, 3)$ translates to $(10, -4)$, then $(4, 2)$ translates to _____.

12. If $(2, 3)$ translates to $(-1, 8)$, then $(4, 2)$ translates to _____.

Use a reflection in the x -axis to draw the other half of the figure.

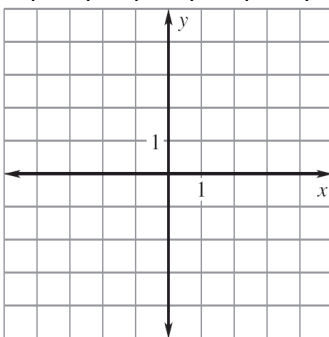


Use a reflection in the y -axis to draw the other half of the figure.



Use the coordinates to graph \overline{AB} and \overline{CD} . Tell whether \overline{CD} is a rotation of \overline{AB} about the origin. If so, give the angle and direction of rotation.

17. $A(2, 1), B(5, 3), C(1, -2), D(3, -5)$



18. $A(-2, 3), B(-2, 5), C(-2, -3), D(-3, -7)$

