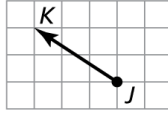


REVIEW LESSON 4.1 – 4.3

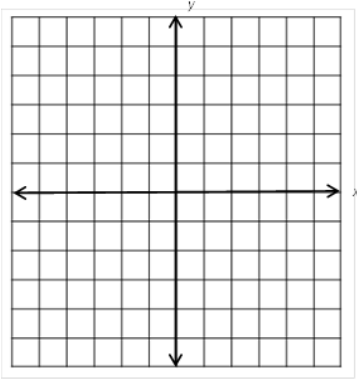
Transformations in the Coordinate Plane

1. Name the vector and write its component form.



2. The vertices of $\triangle ABC$ are $A(2, 3)$, $B(-1, 2)$, and $C(0, 1)$.

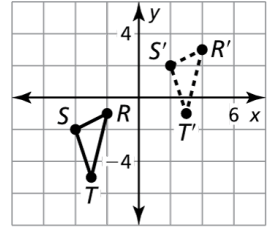
Translate $\triangle ABC$ using the vector $\langle 1, -4 \rangle$. Graph $\triangle ABC$ and its image.



3. Find the component form of the vector

that translates $A(3, -2)$ to $A'(-1, 4)$.

4. Write a rule for the translation of $\triangle RST$ to $\triangle R'S'T'$.



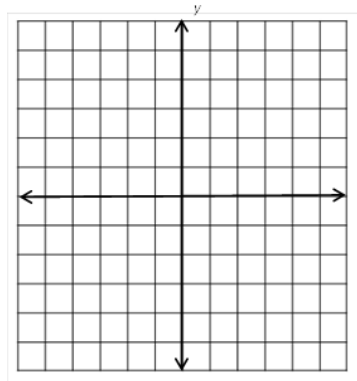
Use the translation $(x, y) \rightarrow (x + 1, y - 3)$ to find the image of the given point.

5. $Q(5, 9)$

6. $M(-3, -8)$

Graph $\triangle CDE$ with vertices $C(-1, 3)$, $D(0, -2)$, and $E(1, 1)$ and its image after the given translation or composition.

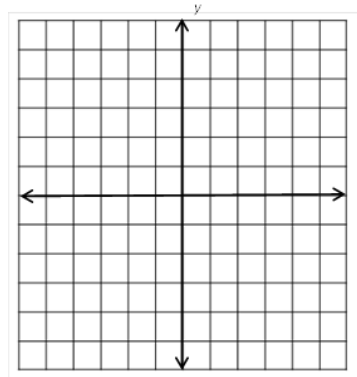
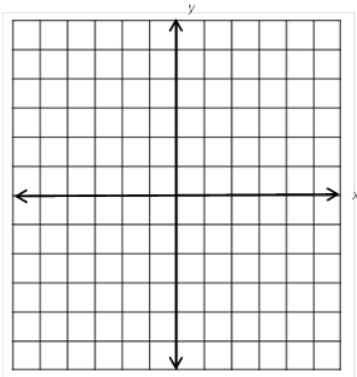
7. Translation: $(x, y) \rightarrow (x - 3, y + 1)$



Graph $\triangle ABC$ and its image after a reflection in the given line.

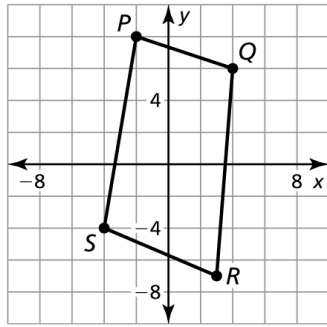
8. $A(0, 2)$, $B(1, -3)$, $C(2, 4)$; x -axis

9. $A(4, -1)$, $B(3, 4)$, $C(-1, 1)$; $y = -2$

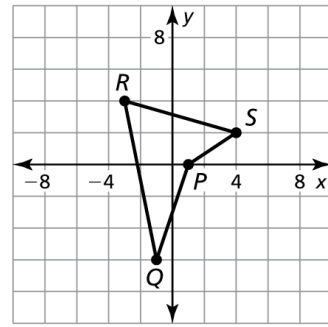


Graph the polygon and its image after a reflection in the given line.

10. $y = -x$



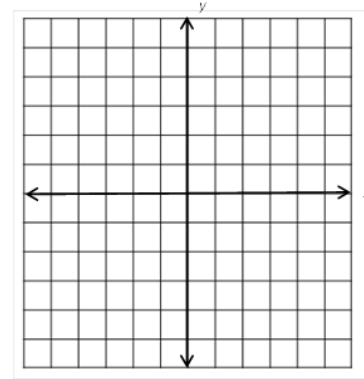
11. $y = x$



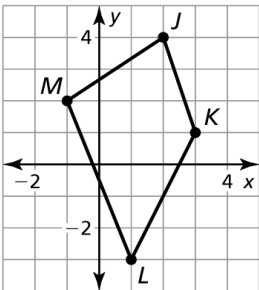
Graph $\triangle JKL$ with vertices $J(2, 3)$, $K(-2, 1)$, and $L(-1, 5)$ and its image after the glide reflection.

12. Translation: $(x, y) \rightarrow (x + 2, y - 3)$

Reflection: in the line $x = -2$



13. Graph the polygon and its image after a 270° rotation about the origin.



14. Graph $\triangle RST$ with vertices $R(2, 3)$, $S(-2, 1)$, and $T(-1, 5)$ and its image after the composition.

Translation: $(x, y) \rightarrow (x - 2, y - 1)$

Rotation: 90° about the origin

