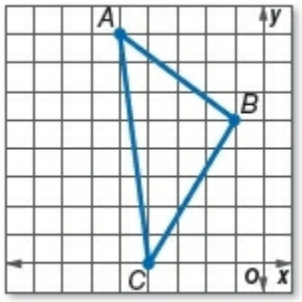
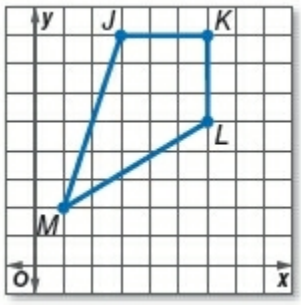
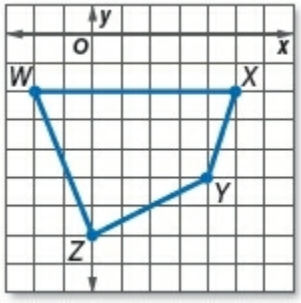
3-1 Reflections

Graph each figure and its image in the given line.

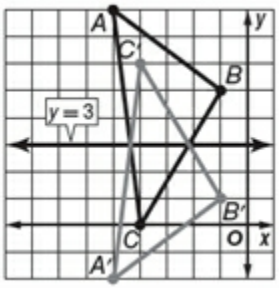






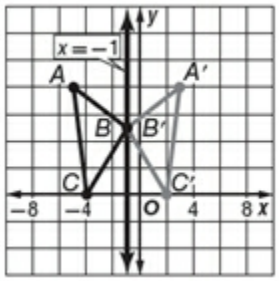
18. ΔABC; $y = 3$

ANSWER:



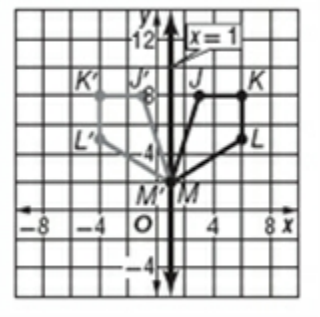
19. ΔABC; $x = -1$

ANSWER:



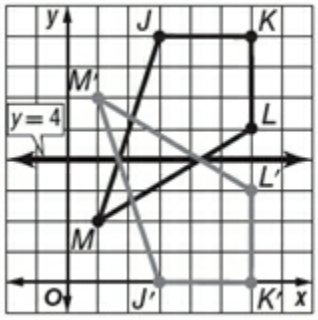
20. *JKLM*; $x = 1$

ANSWER:



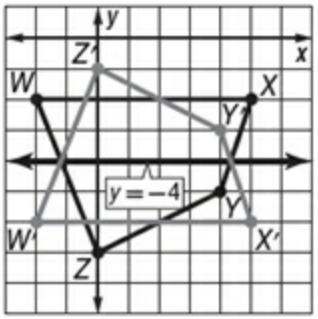
21. *JKLM*; $y = 4$

ANSWER:



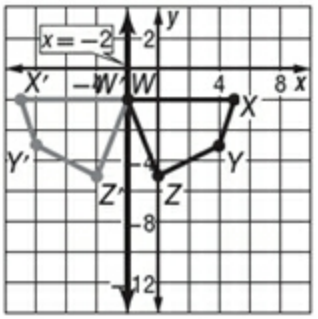
22. *WXYZ*; $y = -4$

ANSWER:



23. *WXYZ*; $x = -2$

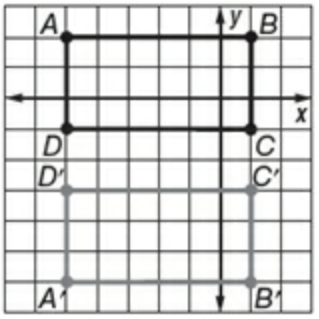
ANSWER:



STRUCTURE Graph each figure and its image under the given reflection.

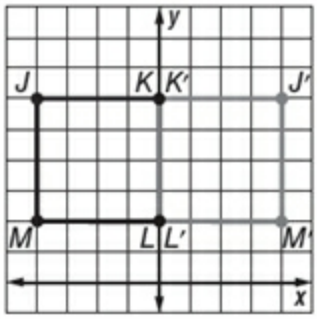
24. rectangle *ABCD* with vertices $A(-5, 2)$, $B(1, 2)$, $C(1, -1)$, and $D(-5, -1)$ in the line $y = -2$

ANSWER:



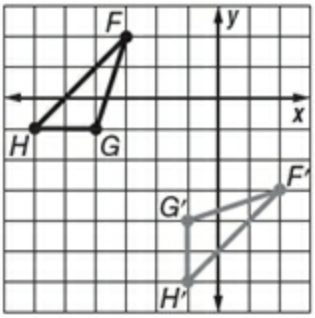
25. square *JKLM* with vertices $J(-4, 6)$, $K(0, 6)$, $L(0, 2)$, and $M(-4, 2)$ in the *y*-axis

ANSWER:



26. ΔFGH with vertices $F(-3, 2)$, $G(-4, -1)$, and $H(-6, -1)$ in the line $y = x$

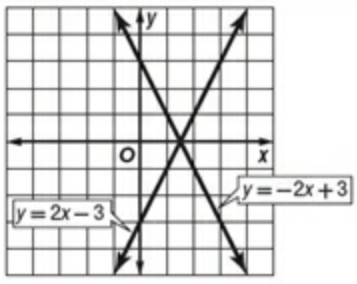
ANSWER:



ALGEBRA Graph the line $y = 2x - 3$ and its reflected image in the given line. What is the equation of the reflected image?

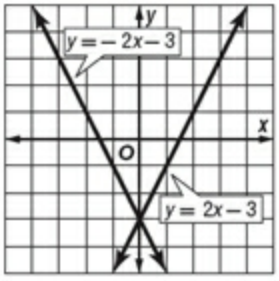
36. *x*-axis

ANSWER:



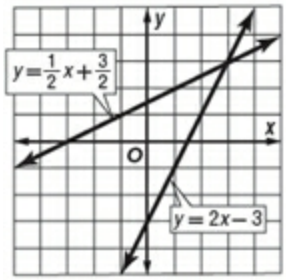
37. *y*-axis

ANSWER:



38. $y = x$

ANSWER:



50. **PRECISION** The image of a point reflected in a line is *always*, *sometimes*, or *never* located on the other side of the line of reflection.

ANSWER:

Sometimes; if the point in located on the line of reflection, then the point will remain in its same location.

58. Kyle performs a reflection and finds that every point on the *x*-axis is mapped to itself. Which of the following could be Kyle's reflection?

A $(x, y) \rightarrow (x, -y)$
B $(x, y) \rightarrow (y, x)$
C $(x, y) \rightarrow (-x, y)$
D $(x, y) \rightarrow (x + 4, y)$

ANSWER:

A