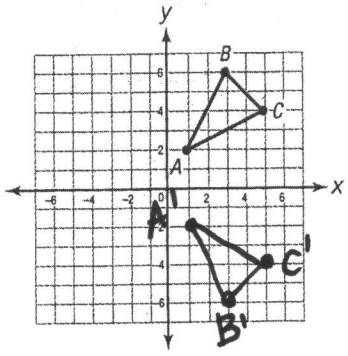
Answer Key

Practice

Draw each reflected image as described and name its vertices. Identify the coordinates of the vertices of the image.

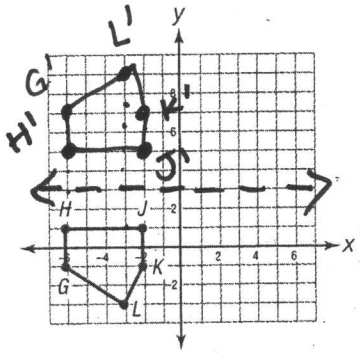
1. Reflect $\triangle ABC$ across the x-axis.



$A'(\underline{1}, \underline{-2})$ $B'(\underline{3}, \underline{-6})$ $C'(\underline{5}, \underline{-4})$

REMEMBER When a point is reflected across the x-axis, the sign of its y-coordinate changes.

2. Reflect pentagon $GHJKL$ across the line $y = 3$.



$G'(\underline{-6}, \underline{7})$ $H'(\underline{-6}, \underline{+5})$ $J'(\underline{-2}, \underline{5})$

$K'(\underline{-2}, \underline{7})$ $L'(\underline{-3}, \underline{9})$

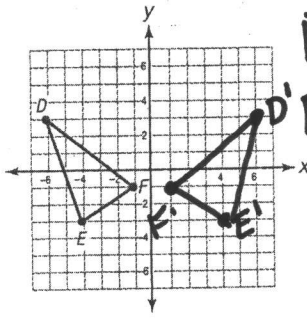
Fill in each blank with an appropriate word or phrase.

3. A reflection results in two figures that look like mirror images of each other.
4. Lines that meet and form right angles are called perpendicular lines.
5. A point and its reflection are each the same distance from line of reflection.
6. The path that a point takes across the line of reflection is perpendicular to the line of reflection.

Use the given function to transform $\triangle DEF$. Then describe the transformation in words.

7. $R(x, y) = (-x, y)$

D (-6,3)
E (-4,-3)
F (-1,-1)

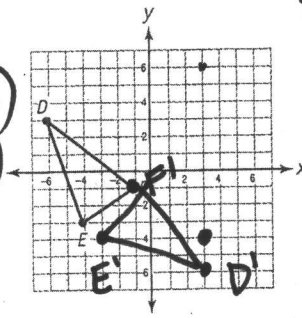


D'(6,3)
E'(4,-3)
F'(1,-1)

reflect across y-axis

8. $R(x, y) = (y, x)$

D (-6,3)
E (-4,-3)
F (-1,-1)



D'(3,-6)
E'(-3,-4)
F'(-1,-1)

reflect across y=x