

Assignment: T2-23 Transformations

Describe the result of applying each transformation to a figure $[A(x, y)]$ in the coordinate plane. Be specific with direction and distance.

1. $H(x, y) = (x - 2, y + 3)$

2. $R(x, y) = (x + 3, -y)$

3. $T(x, y) = (-x, -y)$

4. $K(x, y) = \left(\frac{1}{2}x, 6y\right)$

5. $D(x, y) = (x, y - 6)$

6. $R(x, y) = (x - 4, y - 1)$

7. $G(x, y) = (x, -y - 4)$

8. $F(x, y) = (8x, 10y)$

Write the rule for each transformation described below for a given (x, y) coordinate.

9. translation 6 units right

10. translation 4 units down

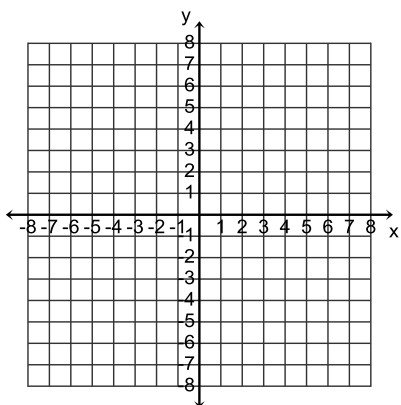
11. reflection across the x -axis and translated up 3 units

12. translation 9 units right and 8 units down

The coordinates of $\triangle ABC$ are $A(-2, 3)$, $B(-3, 1)$, and $C(4, 2)$. Plot the points and draw the triangle. Use the given rule to transform the figure. Write down the new vertices. Then describe the transformation.

13. $\triangle DEF$

Vertices

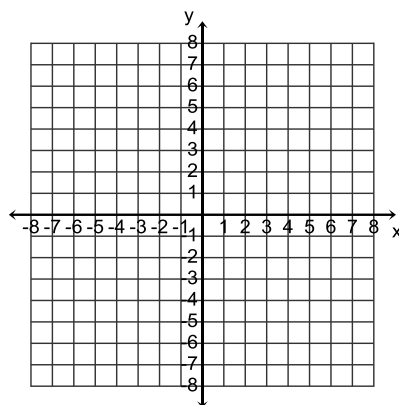


Rule: $(2x, y)$

Transformation

14. $\triangle GHI$

Vertices

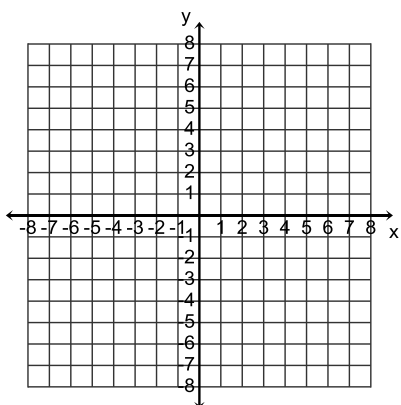


Rule: $(x, -y)$

Transformation:

15. $\triangle JKL$

Vertices

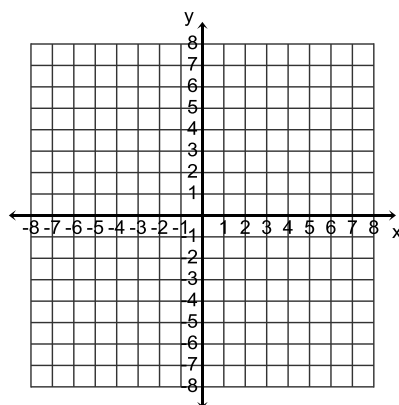


Rule: $(x+3, y-2)$

Transformation:

16. $\triangle MNO$

Vertices



Rule: $(x-2, y-1)$

Transformation: