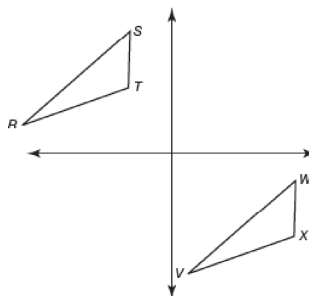


Geometric Transformations Multiple Choice Test Bank

1. A triangle has vertices at $A(1, 3)$, $B(4, 2)$, and $C(3, 8)$. Which transformation would produce an image with vertices $A'(3, -1)$, $B'(2, -4)$, $C'(8, -3)$?
[G.CO.2, G.CO.4, G.CO.5]
 - a. a reflection over the x -axis
 - b. a reflection over the y -axis
 - c. a rotation 90° clockwise
 - d. a rotation 90° counterclockwise

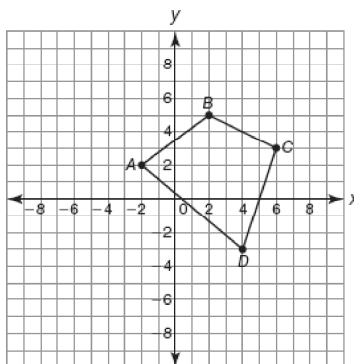
2. A triangle has vertices at $F(-7, 3)$, $G(2, 6)$, and $H(3, 5)$. What are the coordinates of each vertex if the triangle is reflected over the x axis?
[G.CO.2, G.CO.4, G.CO.5]
 - a. $F'(-7, -3)$, $G'(2, -6)$, $H'(3, -5)$
 - b. $F'(7, -3)$, $G'(-2, -6)$, $H'(-3, -5)$
 - c. $F'(7, 3)$, $G'(-2, 6)$, $H'(-3, 5)$
 - d. $F'(-7, 3)$, $G'(-2, 6)$, $H'(-3, -5)$

3. Describe the transformation done on $\triangle RTS$ to form $\triangle VXW$.
[G.CO.2, G.CO.4, G.CO.5]

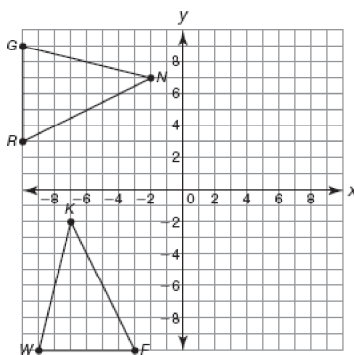


- a. rotation around the origin 180°
- b. reflection over the x -axis
- c. reflection over the y -axis
- d. translation

4. What are the coordinates of each vertex if the figure is rotated 90° counterclockwise about the origin?
[G.CO.2, G.CO.4, G.CO.5]

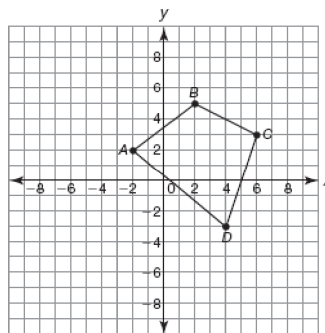


- a. $A'(-2, 2)$, $B'(-5, -2)$, $C'(-3, -6)$, $D'(3, -4)$
- b. $A'(2, -2)$, $B'(5, 2)$, $C'(3, 6)$, $D'(-3, 4)$
- c. $A'(-2, -2)$, $B'(-5, 2)$, $C'(-3, 6)$, $D'(3, 4)$
- d. $A'(2, 2)$, $B'(5, -2)$, $C'(3, -6)$, $D'(-3, -4)$
5. Describe the transformation done on $\triangle FKW$ to form $\triangle RNG$.
[G.CO.2, G.CO.4, G.CO.5]



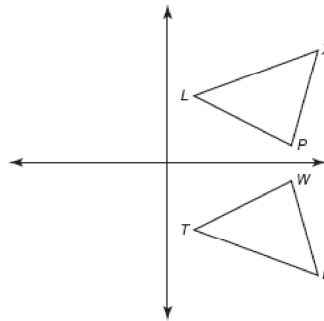
- a. rotation about the origin 90° counterclockwise
- b. rotation about the origin 90° clockwise
- c. reflection over the x -axis
- d. translation 5 units right and 9 units up

6. A triangle has vertices at $A(-3, -1)$, $B(-6, -5)$, $C(-1, -4)$. Which transformation would produce an image with vertices $A'(3, -1)$, $B'(6, -5)$, $C'(1, -4)$?
[G.CO.2, G.CO.4, G.CO.5]
- a reflection over the x -axis
 - a reflection over the y -axis
 - a rotation 90° clockwise
 - a rotation 90° counterclockwise
7. A triangle has vertices at $A(-7, 6)$, $B(4, 9)$, $C(-2, -3)$. What are the coordinates of each vertex if the triangle is translated 4 units right and 6 units down?
[G.CO.2, G.CO.4, G.CO.5]
- $A'(-11, 12)$, $B'(0, 15)$, $C'(-6, 3)$
 - $A'(-11, 0)$, $B'(0, 3)$, $C'(-6, -9)$
 - $A'(-3, 12)$, $B'(8, 15)$, $C'(2, 3)$
 - $A'(-3, 0)$, $B'(8, 3)$, $C'(2, -9)$
8. What are the coordinates of each vertex if the figure is rotated 180° clockwise about the origin?
[G.CO.2, G.CO.4, G.CO.5]

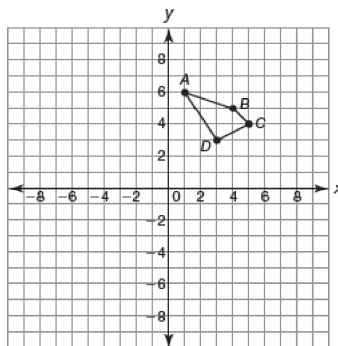


- $A'(-2, -2)$, $B'(-5, 2)$, $C'(-3, 6)$, $D'(3, 4)$
- $A'(2, -2)$, $B'(-2, -5)$, $C'(-6, -3)$, $D'(-4, 3)$
- $A'(-2, -2)$, $B'(2, -5)$, $C'(6, -3)$, $D'(4, 3)$
- $A'(2, 2)$, $B'(-2, 5)$, $C'(-6, 3)$, $D'(-4, -3)$

9. In this figure, $\triangle XPL$ was formed by what transformation on $\triangle DWT$?
 [G.CO.2, G.CO.4, G.CO.5]

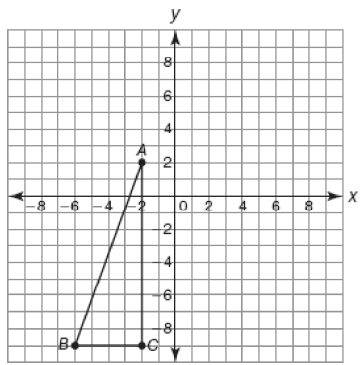


- a. rotation about the origin 180°
 - b. rotation about the origin 90° clockwise
 - c. reflection over the x -axis
 - d. rotation about the origin 90° counterclockwise
10. What are the coordinates of each vertex if the figure is reflected over the y -axis?
 [G.CO.2, G.CO.4, G.CO.5]

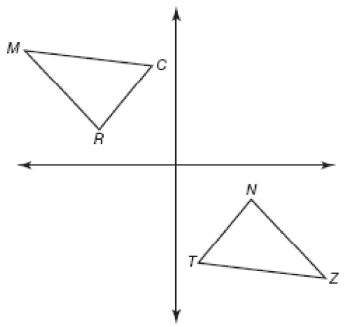


- a. $A'(6, -1), B'(-5, 4), C'(-4, 5), D'(-3, 3)$
- b. $A'(-1, 6), B'(-4, 5), C'(-5, 4), D'(-3, 3)$
- c. $A'(-1, -6), B'(-5, -4), C'(-4, -5), D'(-3, -3)$
- d. $A'(-6, 1), B'(-5, 4), C'(-4, 5), D'(3, -3)$

11. Which transformation would produce an image with vertices $A'(-2, -2)$, $B'(9, -6)$, $C'(9, -2)$?
 [G.CO.2, G.CO.4, G.CO.5]

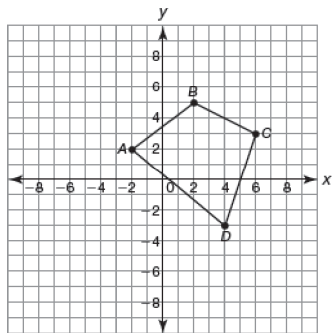


- a. a reflection over the x -axis
 - b. a reflection over the y -axis
 - c. a rotation 90° clockwise
 - d. a rotation 90° counterclockwise
12. What transformation was performed on $\triangle TNZ$ to form $\triangle CRM$?
 [G.CO.2, G.CO.4, G.CO.5]



- a. reflection over the x -axis
- b. reflection over the y -axis
- c. rotation about the origin 90° counterclockwise
- d. rotation about the origin 180°

13. What are the coordinates of each vertex if the figure is translated 3 units right and 2 units up?
[G.CO.2, G.CO.4, G.CO.5]



- a. $A'(0, 5), B'(4, 8), C'(8, 6), D'(6, 0)$
- b. $A'(-5, 0), B'(-1, 3), C'(3, 1), D'(1, -5)$
- c. $A'(1, 0), B'(5, 3), C'(9, 2), D'(7, -5)$
- d. $A'(1, 4), B'(5, 7), C'(9, 5), D'(7, -1)$
14. Determine which rotations will map this figure to itself.
[G.CO.3]



- i. 45°
- ii. 60°
- iii. 120°
- iv. 180°
- a. ii only
- b. ii and iii
- c. ii, iii, and iv
- d. iii and iv

Geometric Transformations Multiple Choice Test Bank
Answer Section

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted] CO.5 TOP: Standardized Test

[Redacted]

[Redacted]

[Redacted]

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