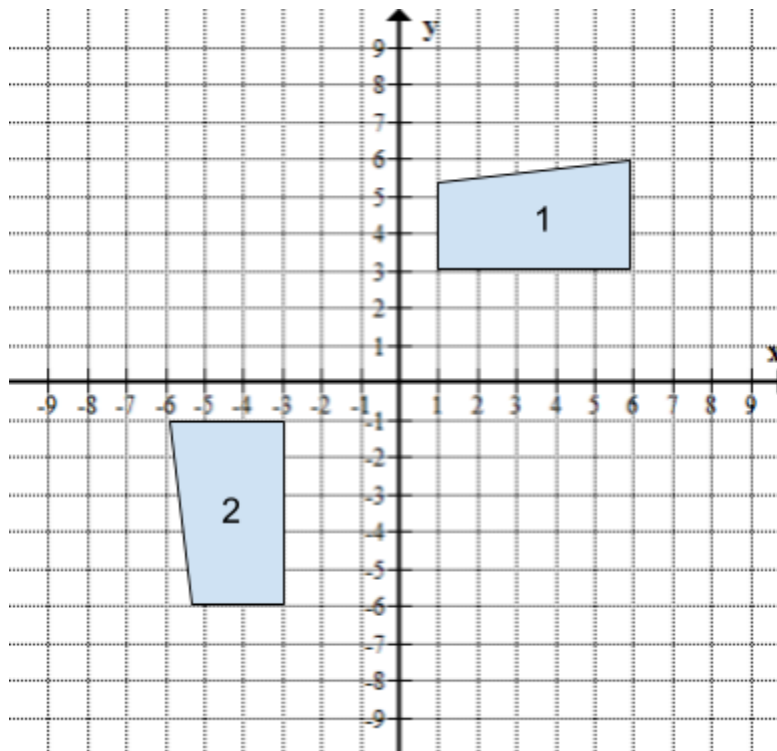


1. Triangle ABC has vertices at A (1, 2), B (4, 6), and C (4, 2) in the coordinate plane. The triangle will be reflected over the x-axis and then rotated 90 degrees clockwise about the origin to form triangle A'B'C'. What are the vertices of triangle A'B'C'?

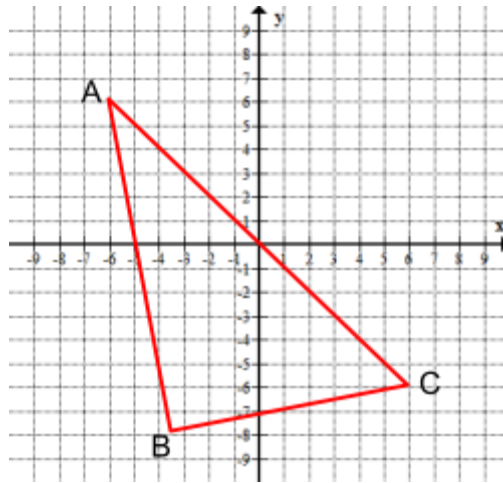
- a. A' (1, -2), B' (4, -6), C' (4, -2)
- b. A' (-1, 2), B' (-4, 6), C' (-4, 2)
- c. A' (-2, 1), B' (-6, 4), C' (-2, 4)
- d. A' (-2, -1), B' (-6, -4), C' (-2, -4)

2. Describe the sequence of transformations that maps figure 1 onto figure 2.



- a. Reflect figure 1 over the x axis, then rotate clockwise about the origin.
- b. Reflect figure 1 over the y axis, then rotate counterclockwise about the origin.
- c. Translate figure 1 left 7 units and rotate counterclockwise 90 about the origin.
- d. Translate figure 1 down 5 units and rotate clockwise 90 about the origin.

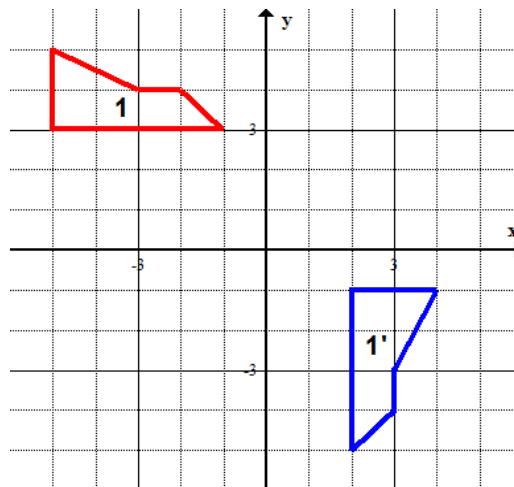
3.



If $\triangle ABC$ were rotated 90° clockwise about the origin, reflected across the y-axis, and translated down 5, how many vertices of $\triangle ABC$ would lie in quadrant IV?

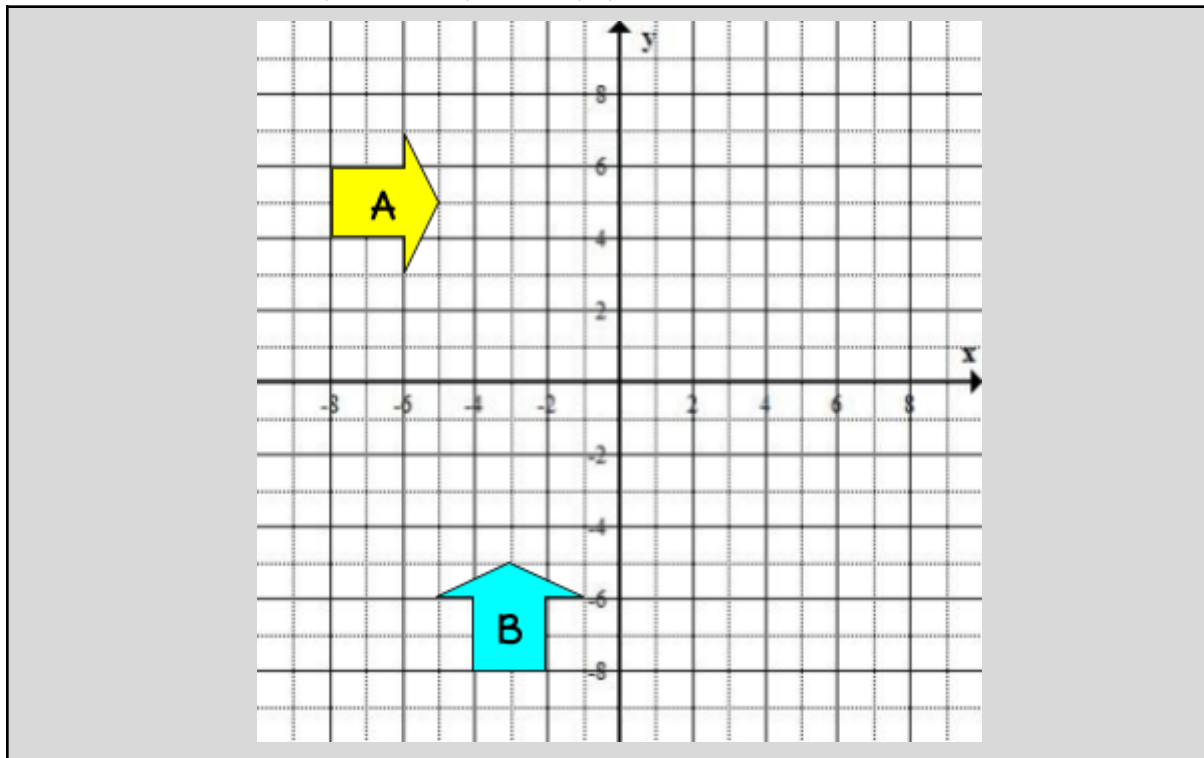
- a. none
- b. 1
- c. 2
- d. All 3

4. Are these figures congruent? Justify your answer using the definition of congruence.



5. $\triangle ABC$ has the following coordinates as vertices: $A(6, 0)$ and $B(-2, 2)$. The midpoint of \overline{BC} is $(-2.5, 0)$. What is the coordinate of vertex C ?
- A. $(2, 1)$
 - B. $(-2, 2)$
 - C. $(-2.25, 1)$
 - D. $(-3, -2)$
-

Extended Constructed Response (respond on paper)



1. Are Figure A and Figure B congruent? Justify your answer.
2. Transform Figure B to create Figure C by performing the following sequence of rigid motions: (make sure and label Figure C)
 - a. Reflection across $x = 2$, b. Reflection across $y = -4$
3. Predict whether Figure C can be transformed back to Figure B using a sequence of rigid motions. Predict whether Figure C can be transformed back to Figure B using a single rigid motion. Justify your predictions.

SCORING GUIDE SUCCESS CRITERIA

4-Exceeding

- Meets all of the Ready Success Criteria **AND**
- Correct prediction w/justification for a single rigid motion transformation

3-Ready

- Correctly identifies whether Figure A & B are congruent
- Valid justification
- Correct creation & location of Figure C
- Correct prediction for a sequence of rigid motion transformation
- Valid justification