

Directions: Please choose the best answer choice for each of the following questions.

1. Neema creates a pinwheel by transforming triangles about a square. What transformation did she perform to create the pinwheel?



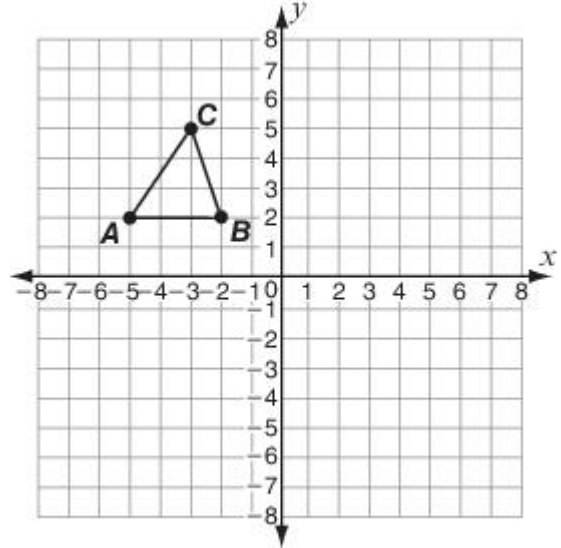
- A. dilation
- B. reflection
- C. rotation
- D. translation

Answer Choice Rationale

- A. No rationale available
- B. No rationale available
- C. Correct
- D. No rationale available

ItemID A2KC.1107282
 Correct C
 Standard(s) MA.9-12.MA.912.G.2.4

2. If we reflect figure ABC over the x -axis, what are the coordinates of the image at point C ?



- A. $(-3, 5)$
- B. $(-3, -5)$
- C. $(3, 5)$
- D. $(3, -5)$

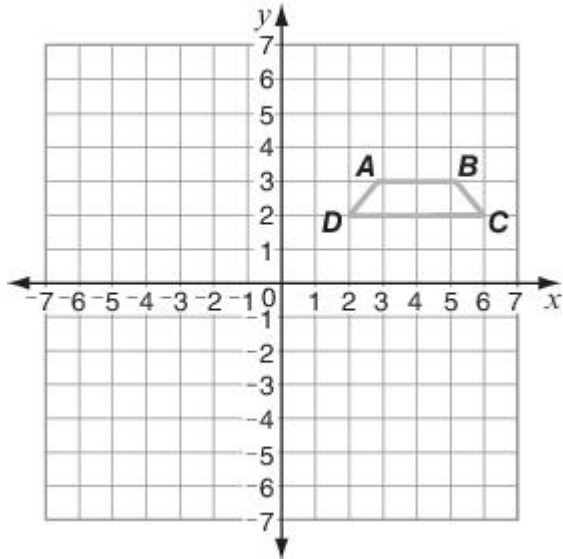
Answer Choice Rationale

- A. No rationale available
- B. Correct
- C. No rationale available
- D. No rationale available

ItemID A2KC.1107295
 Correct B
 Standard(s) MA.9-12.MA.912.G.2.4

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3. Quadrilateral $ABCD$ has the coordinates of $(3, 3)$, $(5, 3)$, $(6, 2)$, and $(2, 2)$. When 2 is subtracted from the x value of each coordinate pair and 3 is added to the y value of each coordinate pair, the resulting quadrilateral is $EFGH$.



Which statement is true?

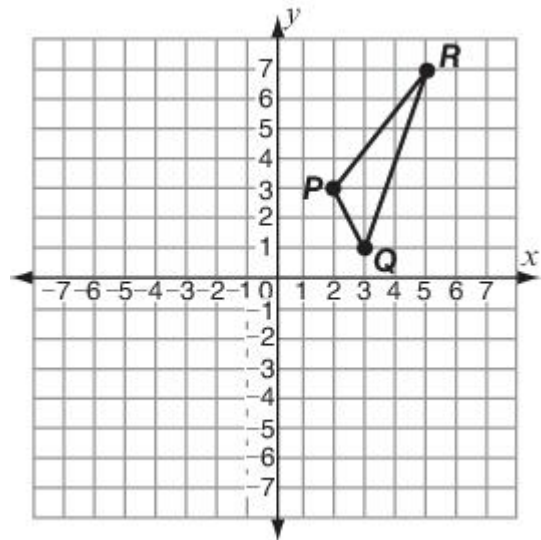
- A. Quadrilateral $EFGH$ is 5 times larger than quadrilateral $ABCD$.
- B. Quadrilateral $EFGH$ is 3 times larger than quadrilateral $ABCD$.
- C. Quadrilateral $EFGH$ is one-half the size of quadrilateral $ABCD$.
- D. Quadrilateral $EFGH$ is congruent to quadrilateral $ABCD$.

Answer Choice Rationale

- A. This answer mistakes the quadrilateral as being 5 times larger because the coordinates are changed by 2 units and 3 units.
- B. This answer mistakes the quadrilateral as being 3 times larger because the y value of each coordinate is changed by 3 units.
- C. This answer mistakes the quadrilateral as being half the size because the x value of each coordinate is changed by 2 units.
- D. Correct answer.

ItemID A2K.1045270
 Correct D
 Standard(s) MA.9-12.MA.912.G.2.4

4. If we slide triangle PQR three units to the left and four units down, what will be the new coordinates of point Q ?



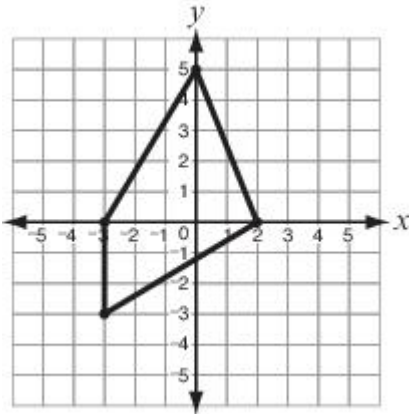
- A. $(0, -1)$
- B. $(0, -3)$
- C. $(-1, 0)$
- D. $(-3, 0)$

Answer Choice Rationale

- A. No rationale available
- B. Correct
- C. No rationale available
- D. No rationale available

ItemID A2KC.1107289
 Correct B
 Standard(s) MA.9-12.MA.912.G.2.4

5. Angela was shown this quadrilateral on a coordinate plane.

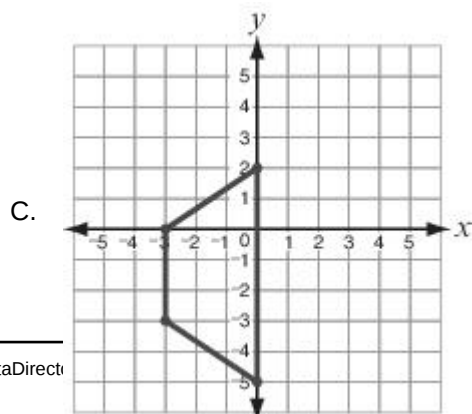
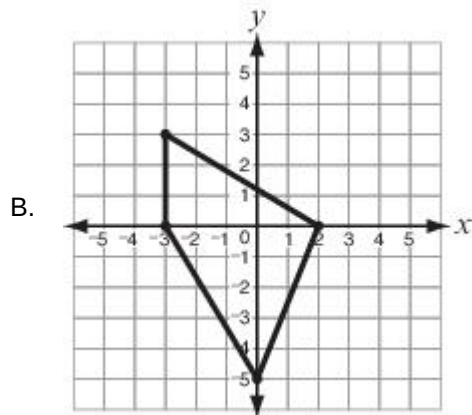
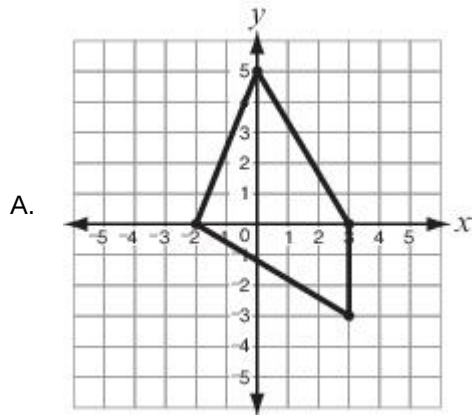


Answer Choice Rationale

- A. This graph shows a reflection across the y-axis.
- B. Correct answer.
- C. This graph shows a figure that is not congruent to the figure in the graph.
A figure that is reflected is congruent to the original figure, but this figure is not congruent to the original figure.
- D. original figure, but this figure is not congruent to the original figure.

ItemID A2K.1019603
 Correct B
 Standard(s) MA.9-12.MA.912.G.2.4

Angela drew a reflection of the quadrilateral across the x-axis. Which figure did she draw?



Stop! You have finished this exam.