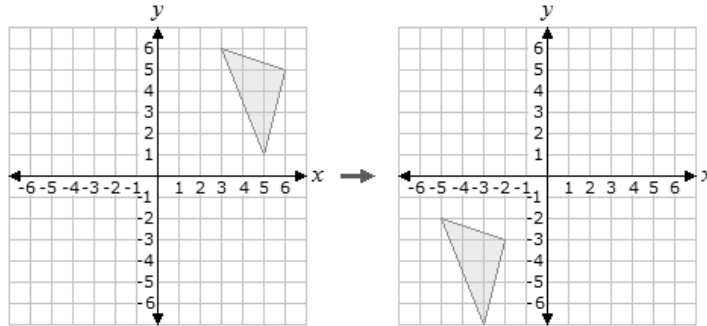


Geometric Transformations Review!

1.



The translation above shows an object moving _____.

- A. 8 units to the left and 8 units up
- B. 8 units to the right and 8 units up
- C. 8 units to the right and 8 units down
- D. 8 units to the left and 8 units down

2. **Directions: Drag the tiles to the correct boxes to complete the pairs.**

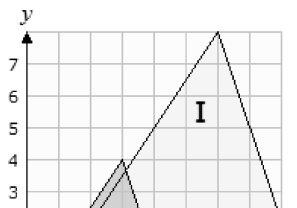
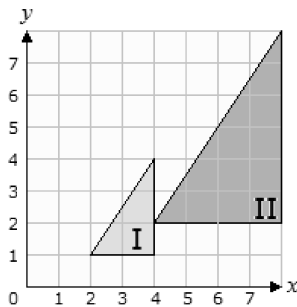
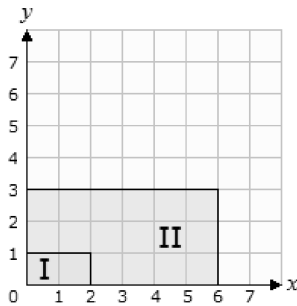
In each graph, figure I was dilated, with center of dilation at the origin, to form figure II. Match the dilations with their associated scale factor.

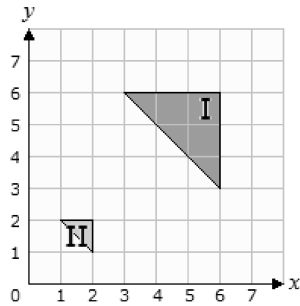
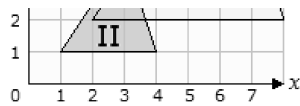
Scale Factor of $\frac{1}{3}$

Scale Factor of $\frac{1}{2}$

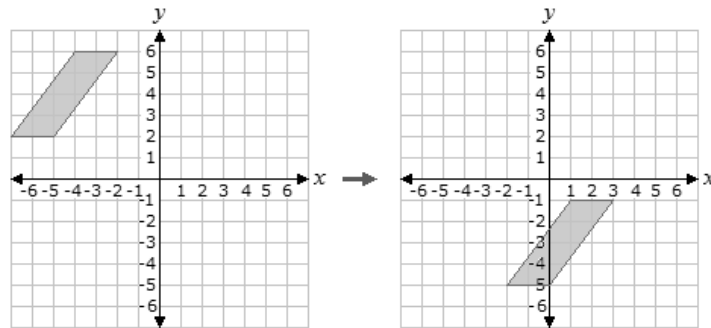
Scale Factor of 2

Scale Factor of 3





3.



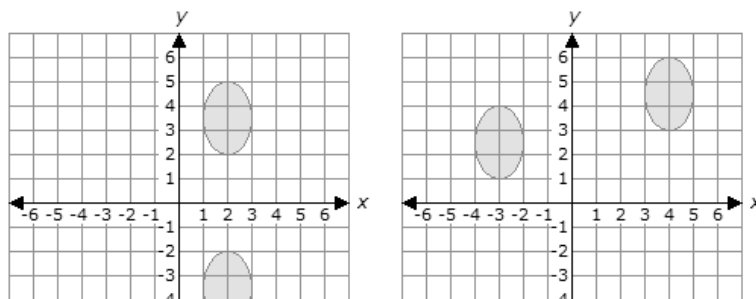
The translation above shows an object moving _____.

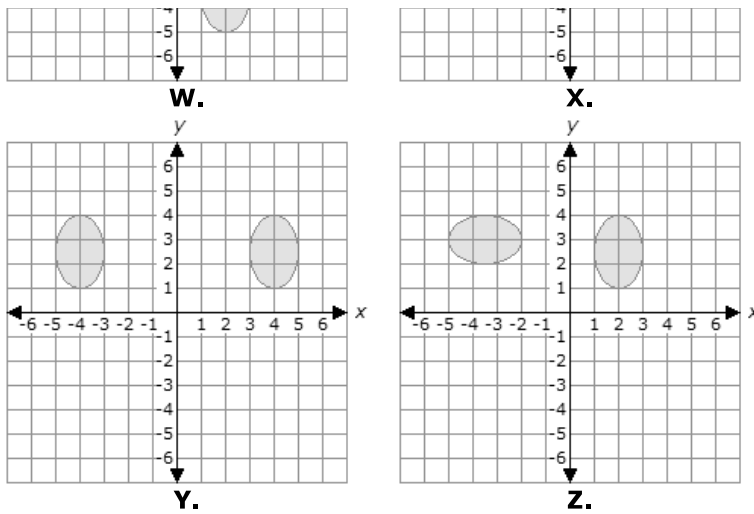
- A. 7 units to the left and 5 units up
- B. 5 units to the left and 7 units up
- C. 7 units to the right and 5 units down
- D. 5 units to the right and 7 units down

4. On a coordinate plane, how are the locations of the points $(8, -9)$ and $(-8, 9)$ related?

- A. reflection across both axes
- B. reflection across the y -axis
- C. reflection across the x -axis
- D. locations unrelated

5.





Which graph shows a reflection across the y -axis?

- A. W
- B. Z
- C. X
- D. Y

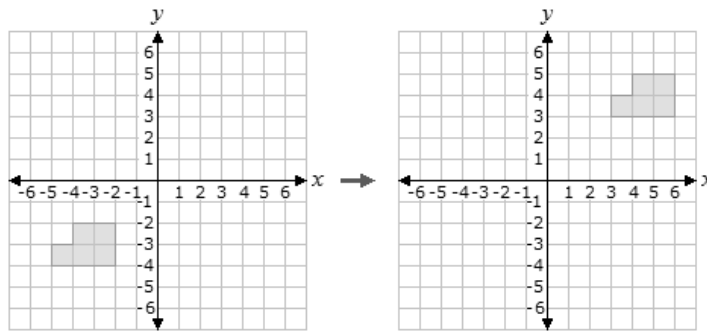
6. The vertices of a trapezoid are shown below.

$$(0, 4), (7, 8), (7, 6), (0, 8)$$

Which of the following points is a vertex for the image produced by a dilation about the origin with a scale factor of $\frac{1}{2}$?

- A. (14, 12)
- B. (3.5, 3)
- C. (4, 3.5)
- D. (9, 8)

7.

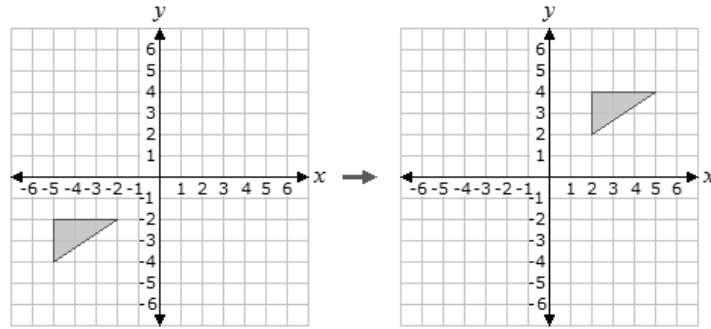


The translation above shows an object moving _____.

- A. 8 units to the right and 7 units up
- B. 8 units to the right and 6 units up
- C. 9 units to the right and 6 units up

- D. 9 units to the right and 7 units up

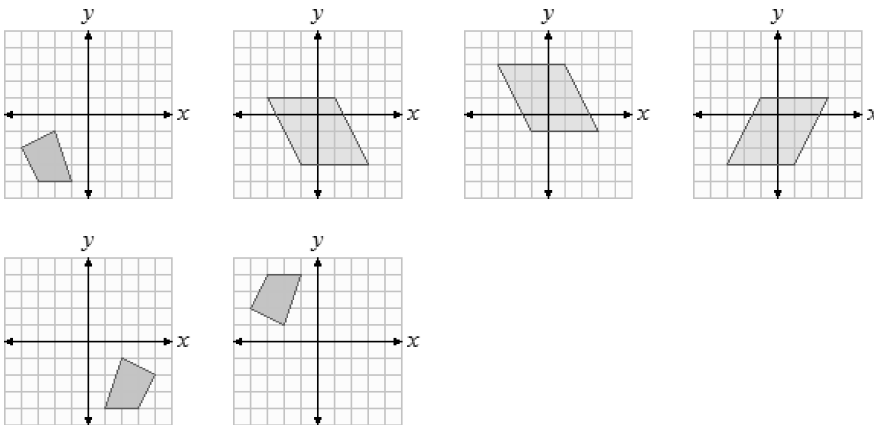
8.



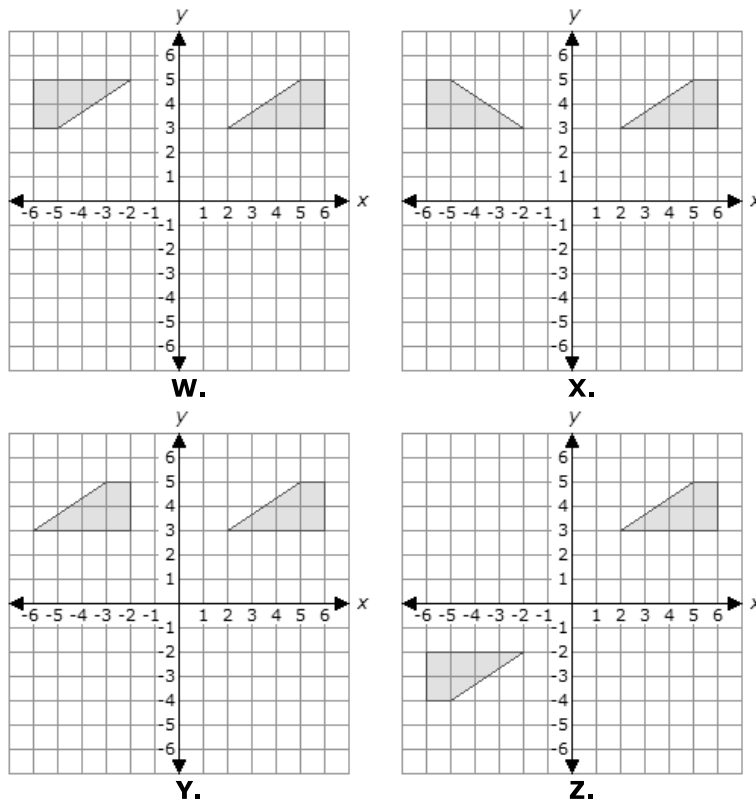
The translation above shows an object moving _____.

- A. 7 units to the right and 6 units up
- B. 7 units to the left and 6 units up
- C. 8 units to the right and 7 units down
- D. 6 units to the right and 7 units up

9. **Directions: Drag each graph to the correct location on the image. Not all graphs will be used.**
Complete the table using the graphs shown below the table.



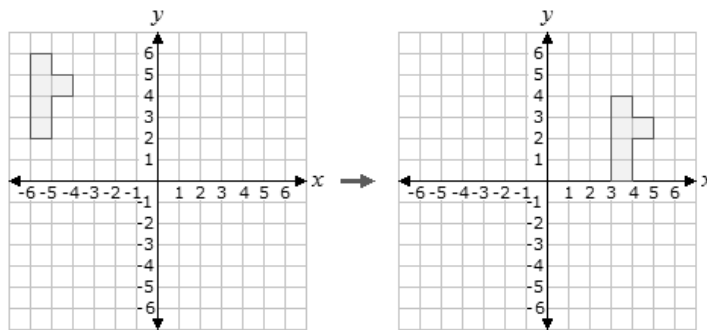
10.



Which graph shows a reflection across the y -axis?

- A. Y
- B. W
- C. X
- D. Z

11.



The translation above shows an object moving _____.

- A. 8 units to the right and 2 units down
- B. 8 units to the right and 3 units down
- C. 9 units to the right and 3 units down
- D. 9 units to the right and 2 units down

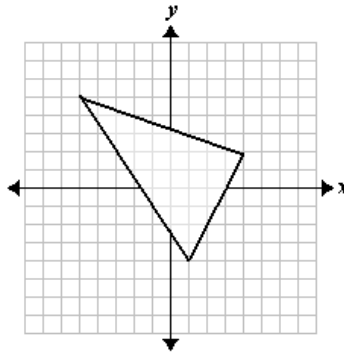
12. Parallelogram JKLM has the coordinates J (3, 7), K (10, 7), L (8, 1), and M (1, 1). Which of the following sets of points represents a dilation from the origin of parallelogram JKLM?

- A. $J' (9, 7), K' (30, 7), L' (24, 1), M' (3, 1)$
- B. $J' (6, 10), K' (13, 10), L' (11, 4), M' (4, 4)$
- C. $J' (3, 21), K' (30, 7), L' (24, 1), M' (1, 3)$
- D. $J' (9, 21), K' (30, 21), L' (24, 3), M' (3, 3)$

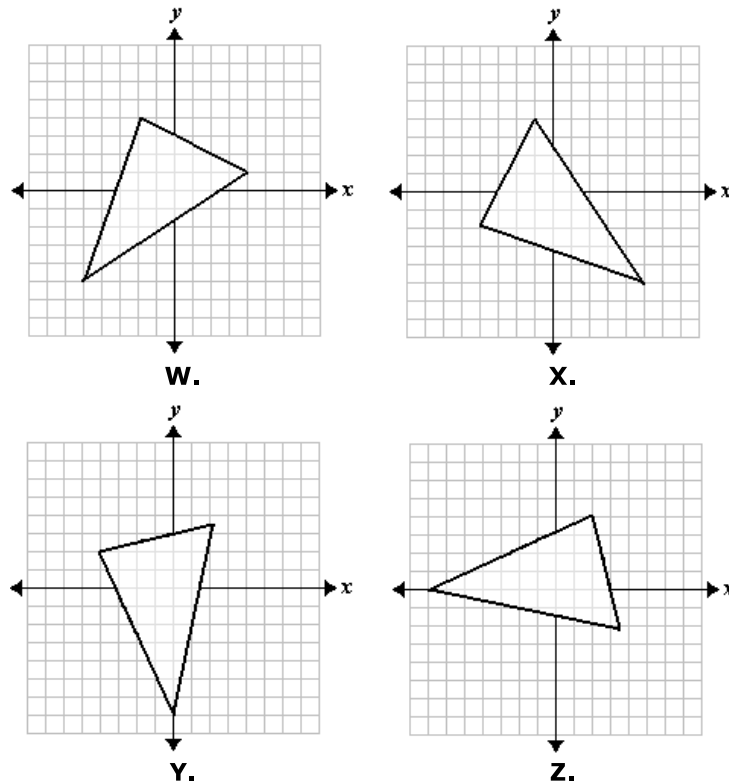
13. On a coordinate plane, how are the locations of the points $(4, 8)$ and $(-4, 8)$ related?

- A. reflection across the y -axis
- B. reflection across both axes
- C. locations unrelated
- D. reflection across the x -axis

14.



Which of the following is a clockwise rotation of the triangle, about the origin, 225° ?

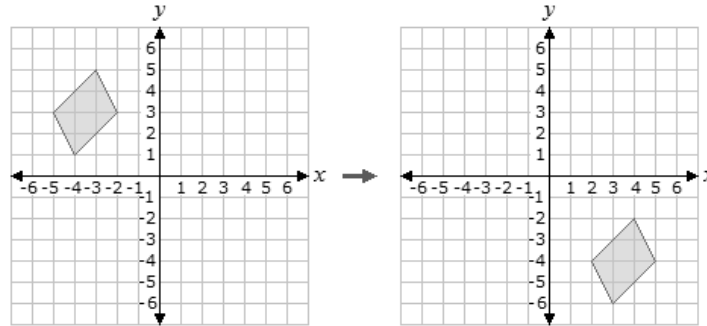


- A. W
- B. Y
- C. Z
- D. X

15. On a coordinate plane, how are the locations of the points $(-1, 3)$ and $(-1, -3)$ related?

- A. reflection across both axes
 - B. locations unrelated
 - C. reflection across the x -axis
 - D. reflection across the y -axis
-

16.



The translation above shows an object moving _____.

- A. 7 units to the right and 7 units down
 - B. 7 units to the right and 7 units up
 - C. 7 units to the right and 6 units down
 - D. 7 units to the left and 7 units down
-

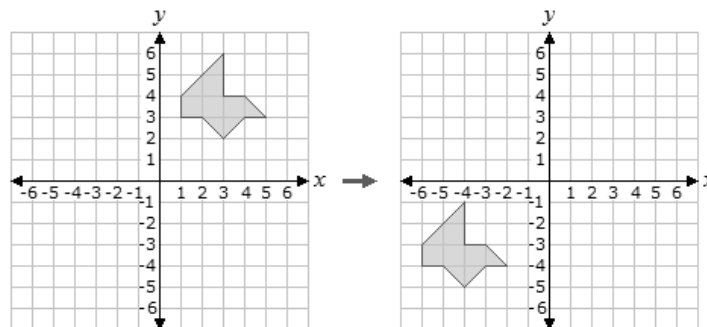
17. The vertices of a trapezoid are shown below.

$$P(0, 0), Q(2, 0), R(2, 7), S(0, 14)$$

This trapezoid is dilated about the origin by a scale factor of 4. What is the location of point Q'?

- A. $(6, 4)$
 - B. $(8, 0)$
 - C. $(6, 0)$
 - D. $(8, 4)$
-

18.

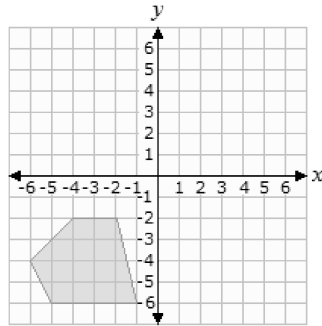


The translation above shows an object moving _____.

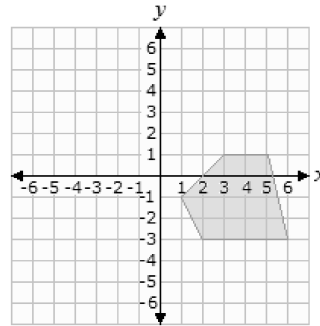
- A. 6 units to the right and 6 units up
- B. 7 units to the right and 7 units up
- C. 6 units to the left and 6 units down
- D. 7 units to the left and 7 units down

19. Directions: Type the correct answer in each box. Spell all words correctly, and use numerals instead of words for numbers. If necessary, use / for the fraction bar(s).

Jeremy was asked to translate the image in graph A 7 units up and 3 units right. However, he did the translation incorrectly and ended up with the image in graph B.



Graph A

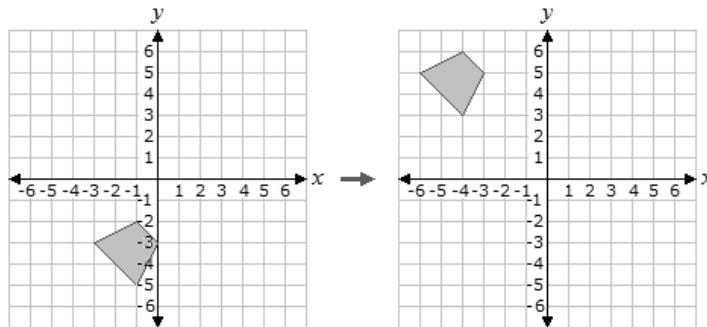


Graph B

What translation does he need to do in order to correct the image in graph B?

Jeremy should move the image in graph B units up and units .

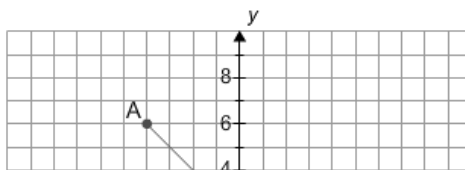
20.

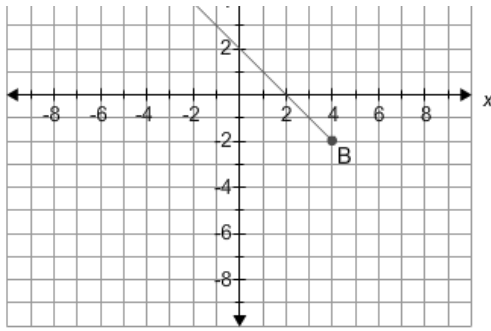


The translation above shows an object moving _____.

- A. 3 units to the right and 8 units down
- B. 3 units to the left and 8 units up
- C. 8 units to the right and 3 units down
- D. 6 units to the left and 5 units up

21. The line segment AB is shown below.

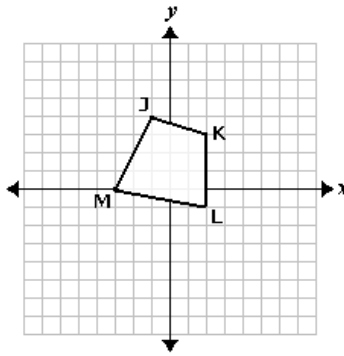




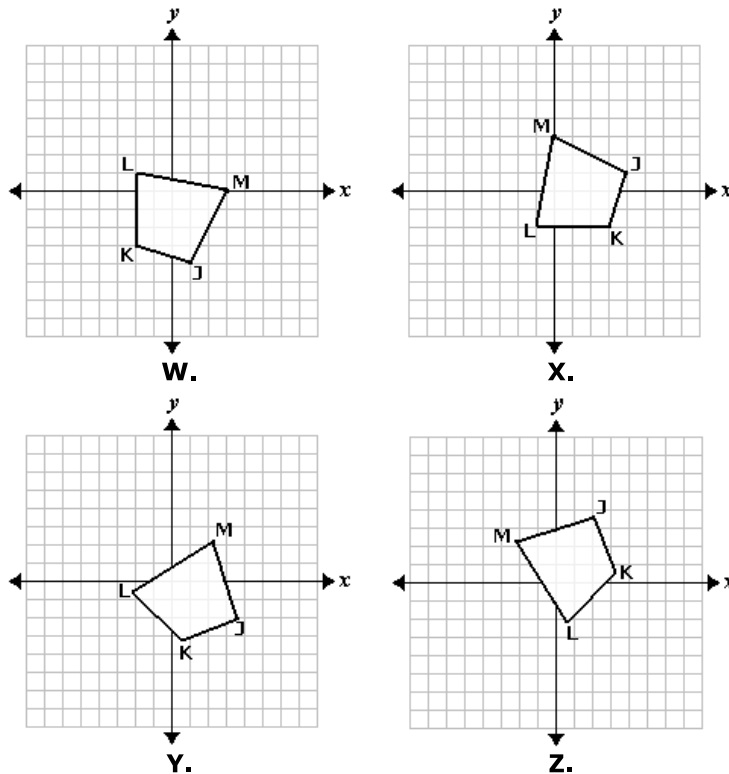
If line segment AB were translated 2 units down and 3 units to the right to create line segment A'B', what would the end points of the new line segment be?

- A. (-1,4) and (7,-4)
- B. (2,5) and (-6,3)
- C. (1,4) and (-7,4)
- D. (-2,5) and (6,-3)

22.

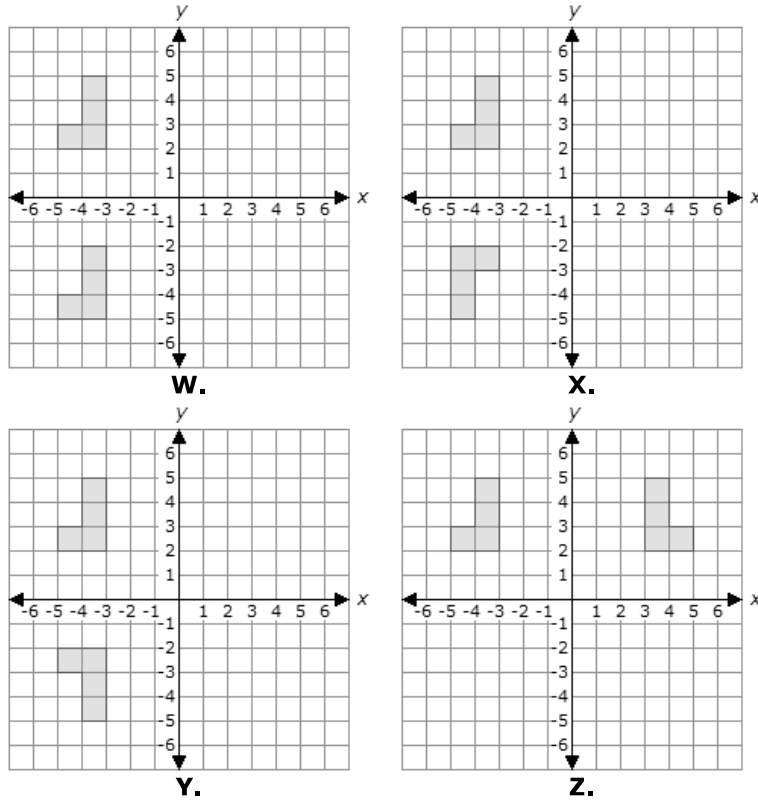


Which of the following is a clockwise rotation of the quadrilateral, about the origin, 45° ?



- A. Z
- B. W
- C. X
- D. Y

23.



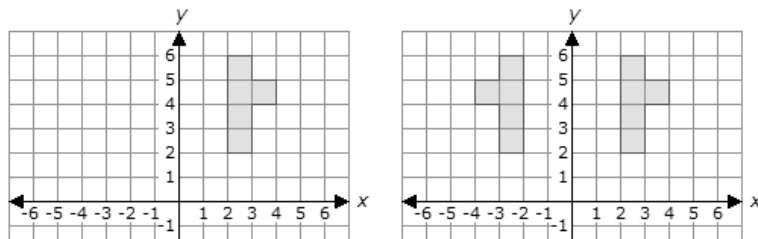
Which graph shows a reflection across the x-axis?

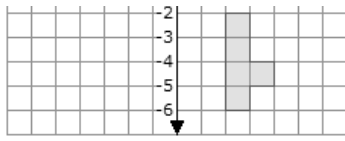
- A. Y
- B. W
- C. Z
- D. X

24. Triangle RST has the coordinates R (1, 2), S (3, 8), and T (5, 2). Which of the following sets of points represents a dilation from the origin of triangle RST?

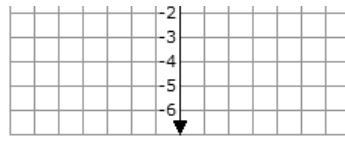
- A. R' (3, 2), S' (3, 24), T' (15, 2)
- B. R' (3, 2), S' (9, 8), T' (15, 2)
- C. R' (3, 6), S' (9, 24), T' (15, 6)
- D. R' (4, 5), S' (6, 11), T' (8, 5)

25.

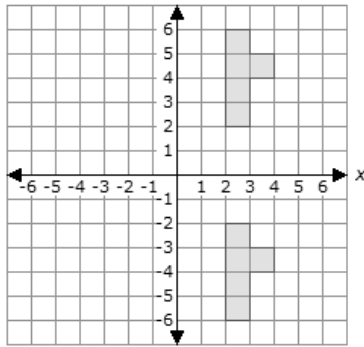




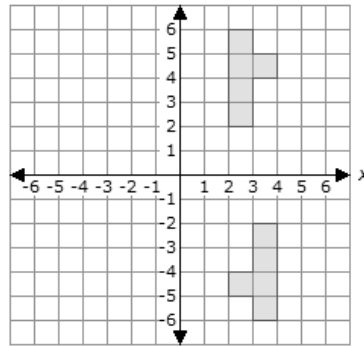
W.



X.



Y.



Z.

Which graph shows a reflection across the x -axis?

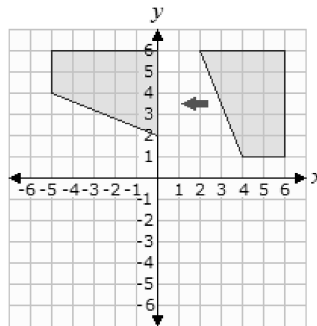
- A. W
- B. Z
- C. Y
- D. X

26. On a coordinate plane, how are the locations of the points $(-1, -5)$ and $(1, -5)$ related?

- A. locations unrelated
- B. reflection across the y -axis
- C. reflection across both axes
- D. reflection across the x -axis

27. **Directions:** Drag each tile to the correct box.

Bill created a sequence of transformations that moves the trapezoid on the right onto the trapezoid on the left.



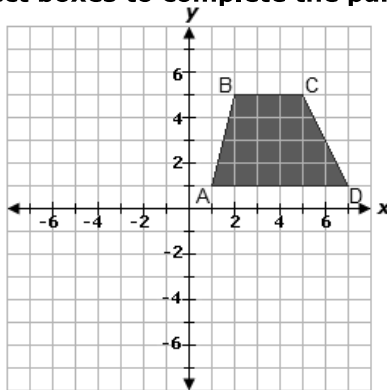
Choose the sequence of transformations that Bill used.

rotate 90° clockwise about the origin	reflect across the x -axis	translate 6 units down
---	---------------------------------	---------------------------

→

→

28. Directions: Drag the tiles to the correct boxes to complete the pairs. Not all tiles will be used.



In figure ABCD above, segments AD and BC are parallel. The segments lie on the lines $y = 5$ and $y = 1$.
 Pair each transformation of figure ABCD with the equations that would correspond to segments AD and BC.

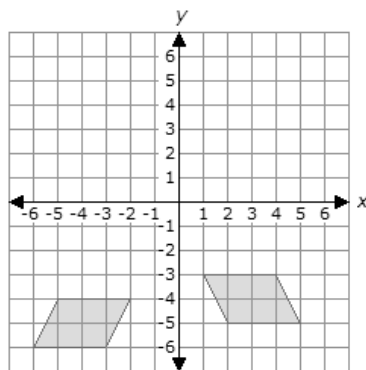
- $x = 5$ and $x = 1$
- $x = -5$ and $x = -1$
- $y = 5$ and $y = 1$
- $y = 3$ and $y = -1$
- $y = -5$ and $y = -1$

translation 3 units left and 2 units down ↔

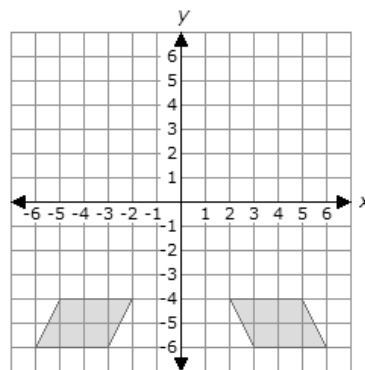
counterclockwise rotation of 90° about the origin ↔

reflection across the y -axis ↔

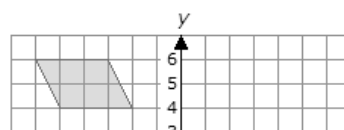
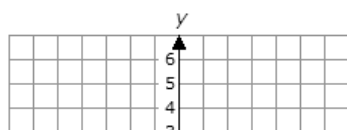
29.

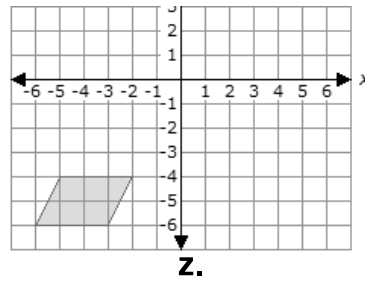
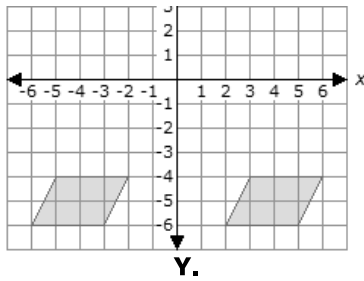


W.



X.



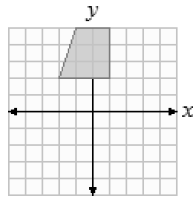
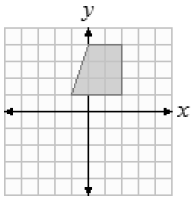
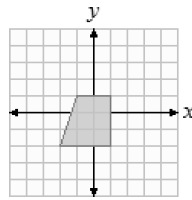
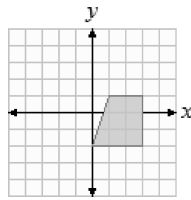
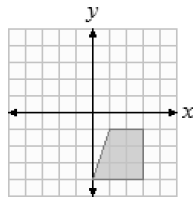
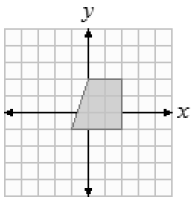


Which graph shows a reflection across the y -axis?

- A. X
- B. W
- C. Y
- D. Z

30. Directions: Drag each graph to the correct location on the table. Each graph can be used more than once, but not all graphs will be used.

Complete the table using the graphs shown.



Answers