Dallas ISD

Renaissance SchoolCity

Test Booklet

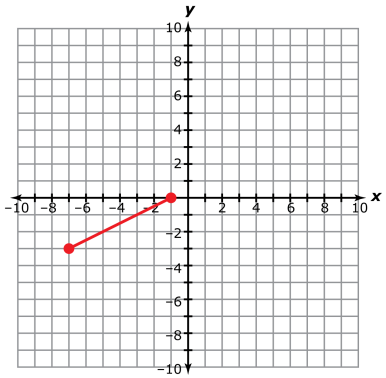
Dummy-2

Assessment ID:2526002897

Name

Date

1. Segment *CT* has a midpoint at (-1, 0).



If point *C* is located at (-7, -3), what is the location of point *T*?

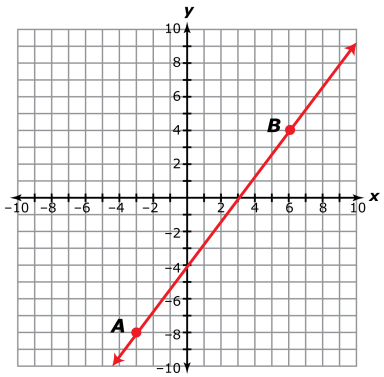
A. (-13, -6)

B. (-4, -1.5)

C. (2, 1.5)

D. (5, 3)

2. The graph of $\overleftrightarrow{AB}$ is shown.



Which equation represents a line parallel to $\overleftrightarrow{AB}$ that passes through the point (0, 4)?

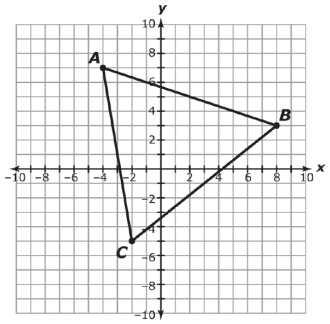
A. $y = -\frac{4}{3}x + 4$

B. $y = -\frac{3}{4}x + 4$

C. $y = \frac{3}{4}x + 4$

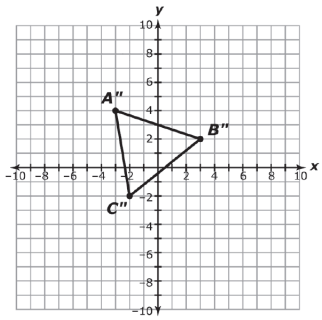
D. $y = \frac{4}{3}x + 4$

3. Triangle *ABC* is shown on the coordinate grid.

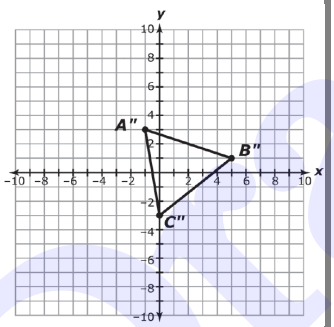


If Δ*ABC* is translated using the rule $(x,\ y) \rightarrow (x - 2,\ y + 1)$ and then dilated by a scale factor of $\frac{1}{2}$ with the origin as the center of dilation, which graph represents Δ*A″B″C″*?

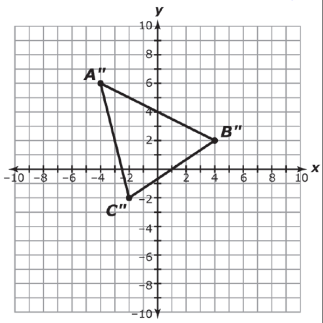
A.



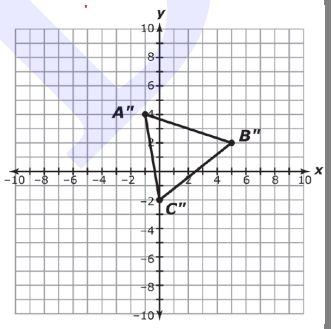
C.



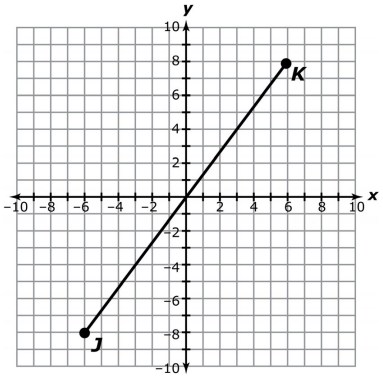
B.



D.



4. Segment $\overline{JK}$ is shown on the coordinate grid.



If point *P* is $\frac{3}{4}$ of the way from point *J* to point *K*, what are the coordinates of point *P*?

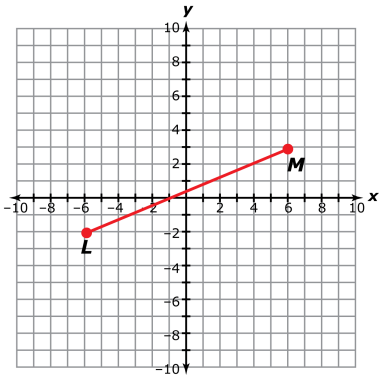
A. (−3, −4)

B. (0, 0)

C. (3, 4)

D. (4, 5)

5. Segment *LM* represents one side of a regular octagon.

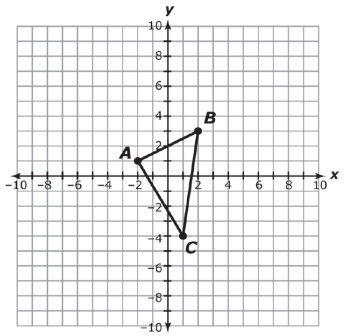


Based on the information in the graph, what is the perimeter of the octagon, in units?

Enter the answer in the box provided.

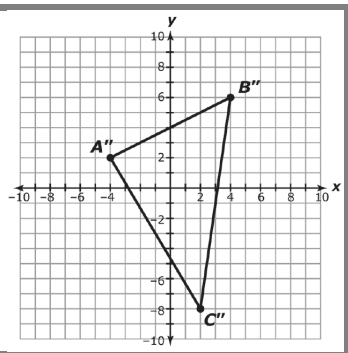
_____ units

6. Triangle *ABC* is shown on the coordinate grid.

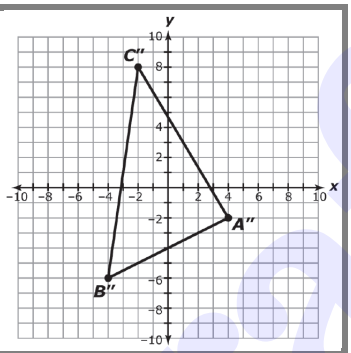


If ΔABC is reflected across the *x*-axis and then dilated by a scale factor of 2 with the origin as the center of dilation, which graph represents $\Delta A''B''C''$?

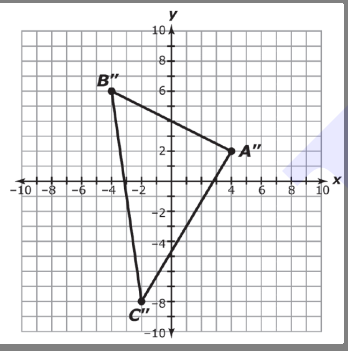
A.



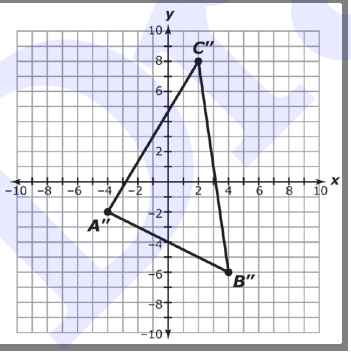
C.



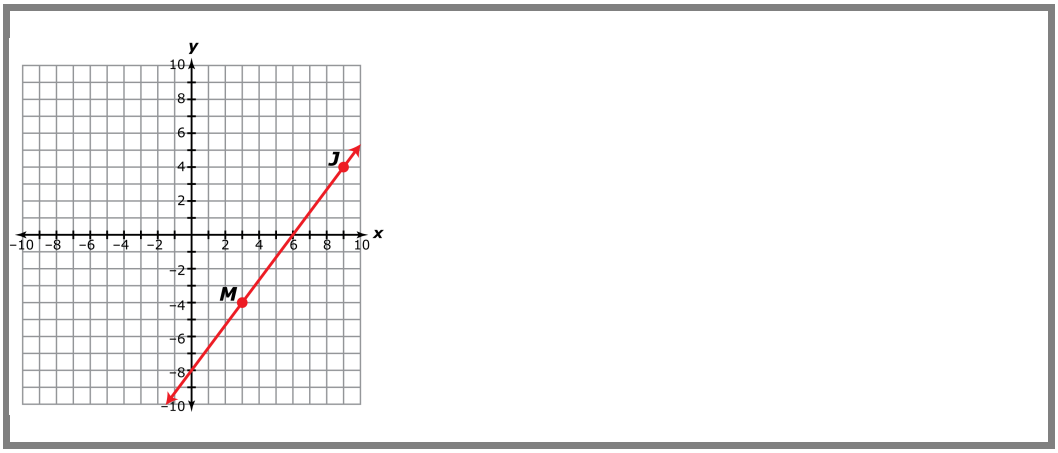
B.



D.



7. The graph of a line is shown.



Which equation represents a line perpendicular to $\overleftrightarrow{JM}$ that passes through the point (-4, 5)?

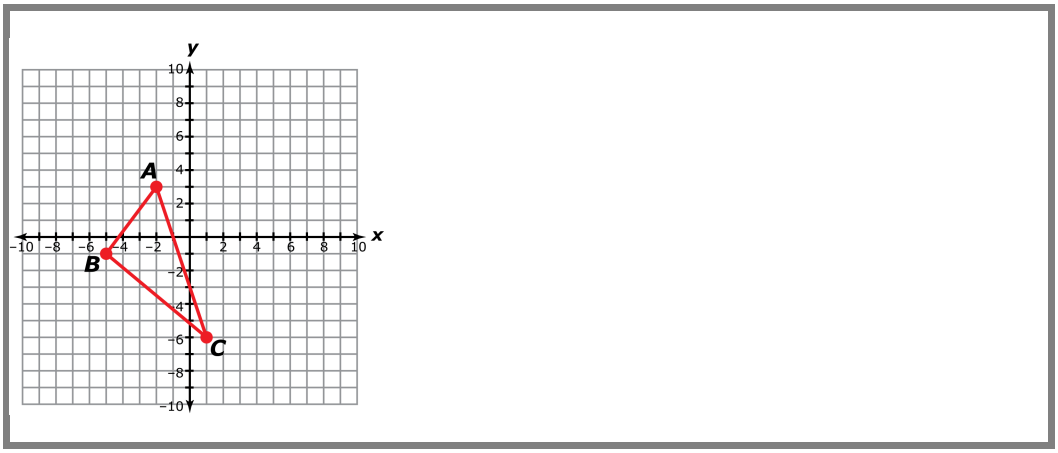
A. $y = \frac{4}{3}x + \frac{31}{3}$

B. $y = -\frac{4}{3}x - \frac{1}{3}$

C. $y = \frac{3}{4}x + 8$

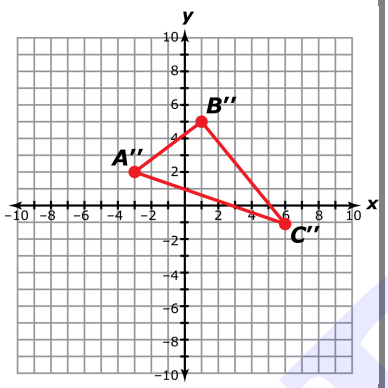
D. $y = -\frac{3}{4}x + 2$

8. Triangle ABC is shown on the coordinate grid.

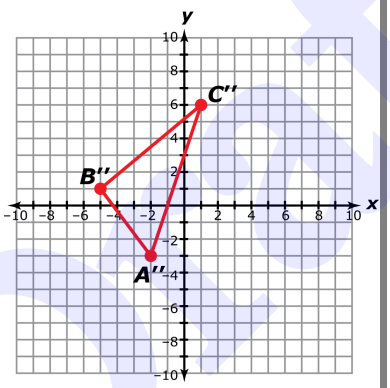


If $\triangle ABC$ is rotated 180° about the origin and reflected across the line $y = x$, which graph represents $\triangle A''B''C''$?

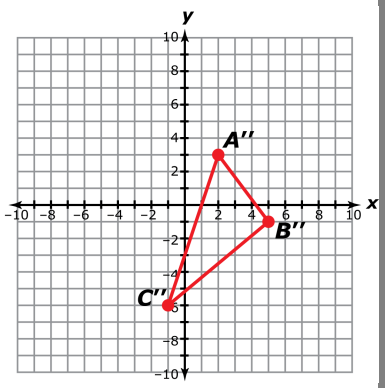
A.



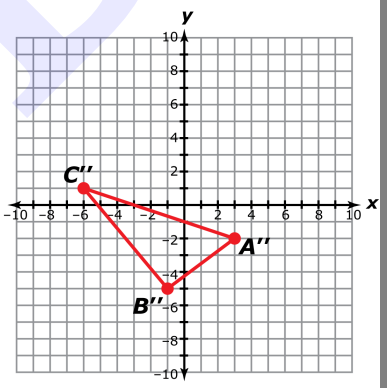
C.



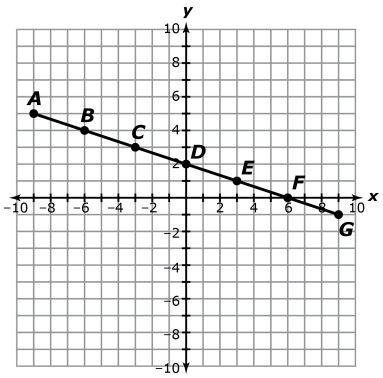
B.



D.



9. Segment $\overline{AG}$ is shown on the coordinate plane.



Which point is $\frac{2}{3}$ the distance from point G to point A?

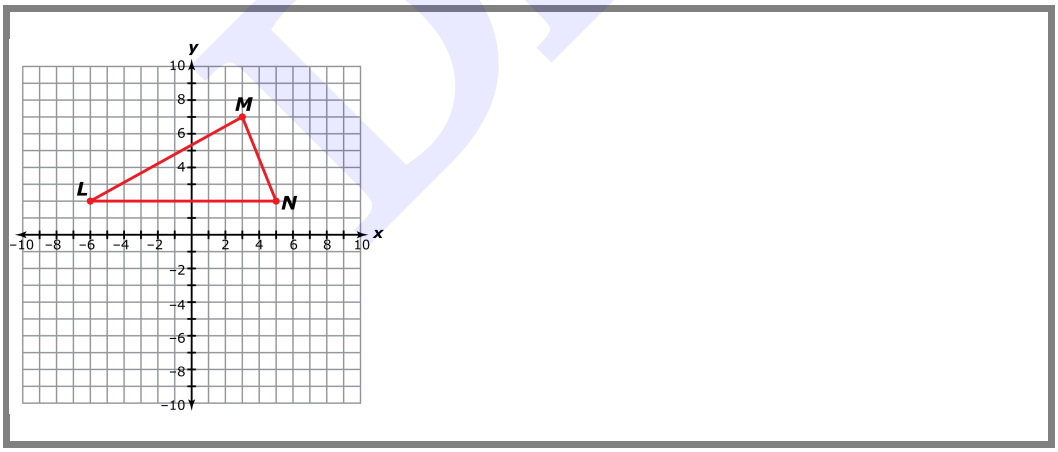
A. Point E

B. Point B

C. Point C

D. Point D

10. Triangle LMN is show.



What is the approximate perimeter of triangle LMN?

A. 24.9 units

B. 25.0 units

C. 26.7 units

D. 27.5 units

11. A triangle is reflected across the *x*-axis, then translated 6 units left. Which algebraic representation best describes this transformation?

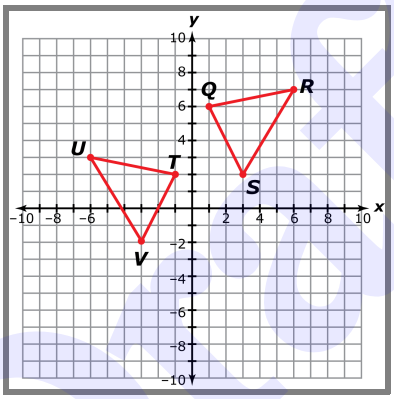
A. $(x, y) \rightarrow (x + 6, -y)$

B. $(x, y) \rightarrow (-x, y + 6)$

C. $(x, y) \rightarrow (x - 6, -y)$

D. $(x, y) \rightarrow (-x, y - 6)$

12. Triangle *QRS* is transformed to create triangle *TUV*.



What is the sequence of transformations that maps ΔQRS to ΔTUV ?

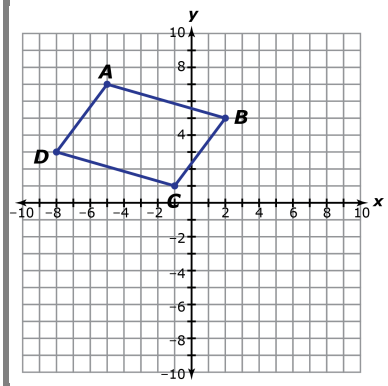
A. Reflect across the *y*-axis, then translate down 4 units.

B. Rotate 180° about the origin then translate up 8 units.

C. Rotate 90° counterclockwise about the origin, then translate up 2 units.

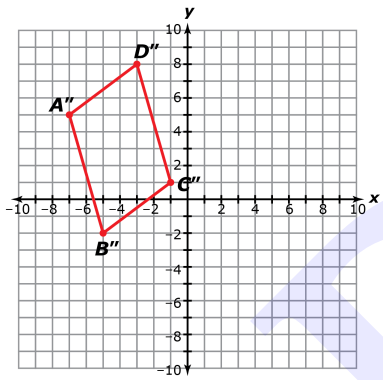
D. Reflect across the *y*-axis, then translate up 4 units.

13. Parallelogram $ABCD$ is shown on the coordinate grid.

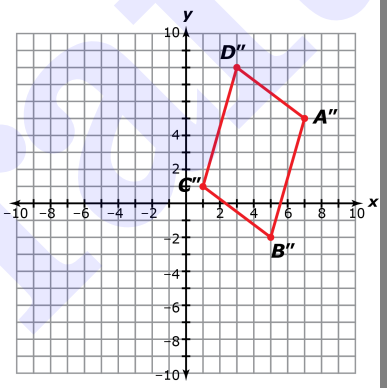


If parallelogram $ABCD$ is rotated 270° clockwise about the origin then reflected across the y-axis to form parallelogram $A"B"C"D"$, which graph represents parallelogram $A"B"C"D"$?

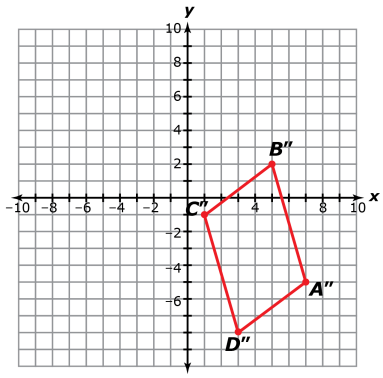
A.



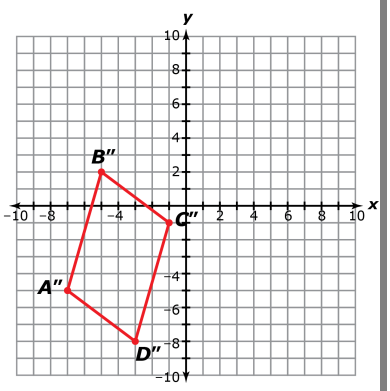
C.



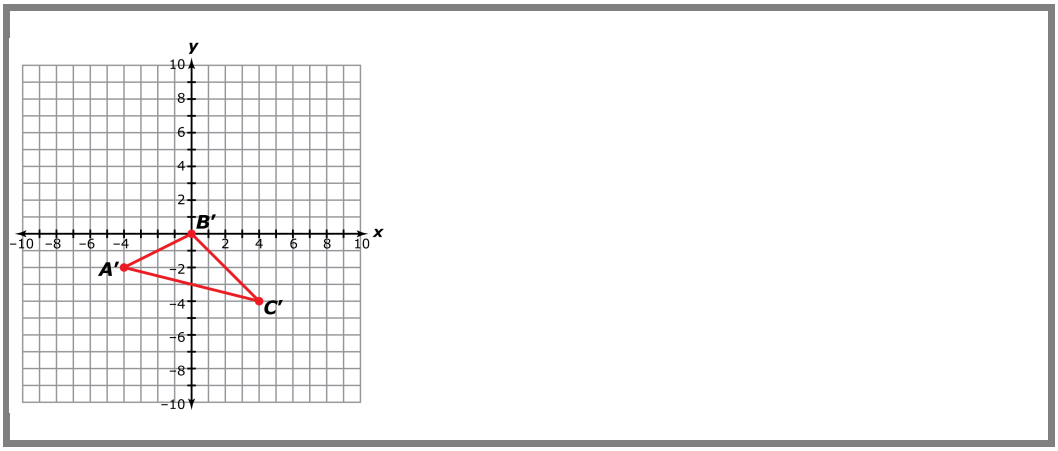
B.



D.

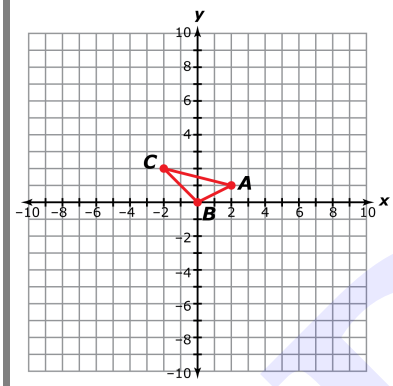


14. Triangle *ABC* is dilated by a scale factor of 2 with the origin as the center of dilation and reflected across the *y*-axis to create Triangle *A'B'C'*.

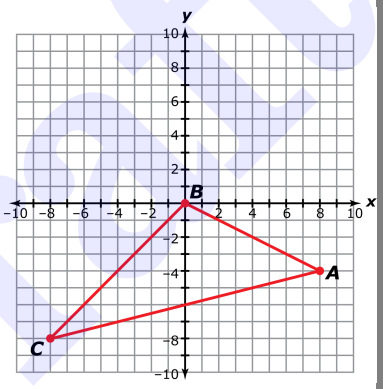


Which graph represents Triangle *ABC*?

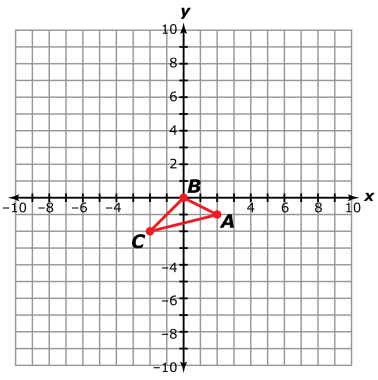
A.



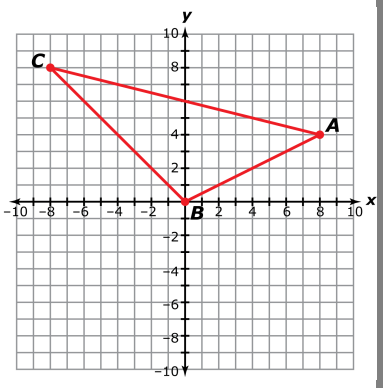
C.



B.



D.



15. Which equation describes a line that passes through $(-5, -8)$ and is perpendicular to $y = \frac{5}{4}x + 10$?

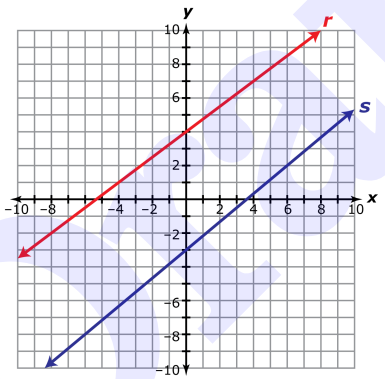
A. $y = -0.8x - 12$

B. $y = -1.25x - 14.25$

C. $y = 1.25x - 1.75$

D. $y = -0.8x + 3$

16. Lines ***r*** and ***s*** are graphed on a coordinate grid as shown.



Based on the information in the graph, which statement is true?

A. Lines ***r*** and ***s*** are parallel lines.

B. Lines ***r*** and ***s*** are perpendicular lines.

C. Lines ***r*** and ***s*** never intersect.

D. Lines ***r*** and ***s*** are neither parallel nor perpendicular.

17. For points $A(-4,3)$, $B(8,12)$, $C(-3,-1\frac{1}{4})$, and $D(5,4\frac{3}{4})$, what is the relationship between $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$?

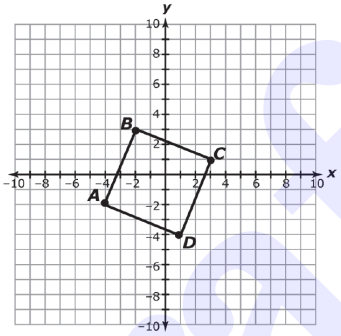
A. They are parallel.

B. They are perpendicular.

C. They are the same line.

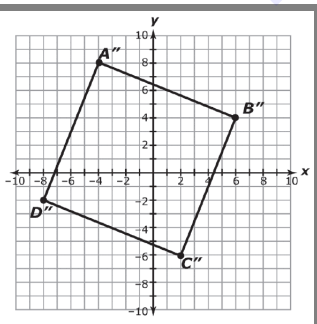
D. They have no significant relationship.

18. Quadrilateral *ABCD* is shown on the coordinate grid.

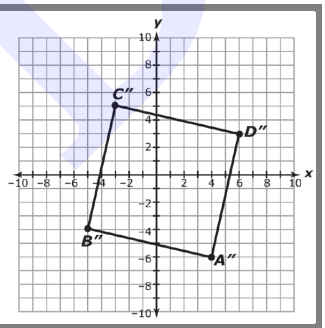


If quadrilateral *ABCD* is rotated 90° clockwise about the origin and then dilated by a scale factor of 2 with the origin as the center of dilation, which graph represents quadrilateral *A″B″C″D″*?

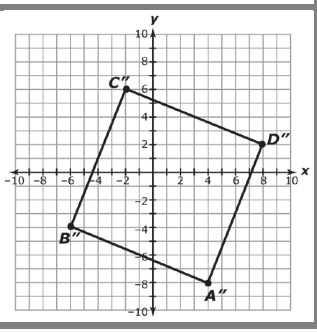
A.



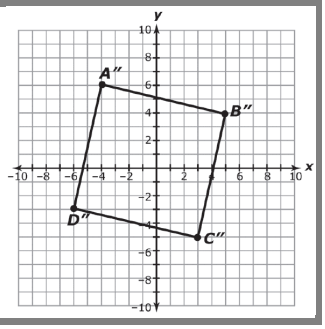
C.



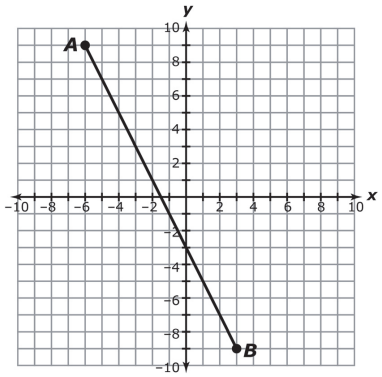
B.



D.



19. $\overline{AB}$ is shown on the coordinate grid.



What are the coordinates of the point $\frac{2}{3}$ the distance from point *A* to point *B*?

A. $(0, -3)$

B. $(-2, 1)$

C. $(-3, 3)$

D. $(1, -5)$

20. John is making a map of his neighborhood on a coordinate grid. He plots the park at point (-3, 4), the library at point (4, -1), and the grocery store at point (-8, 6). If each unit represents two blocks, how far is the library from the grocery store to the nearest block?

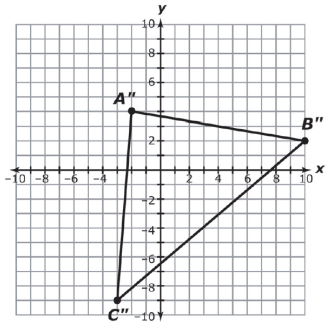
A. 9 blocks

B. 18 blocks

C. 14 blocks

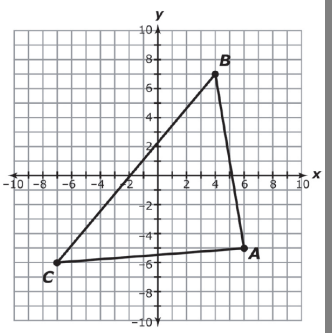
D. 28 blocks

21. Triangle *ABC* was translated using the rule $(x, y) \rightarrow (x - 3, y + 2)$ and then reflected across the line $y = x$ to produce $\triangle A''B''C''$.

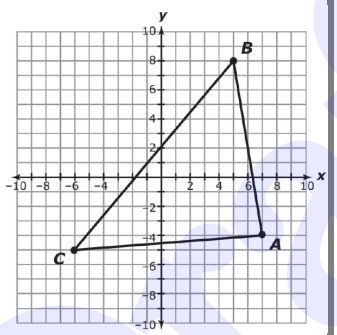


Which graph represents $\triangle ABC$?

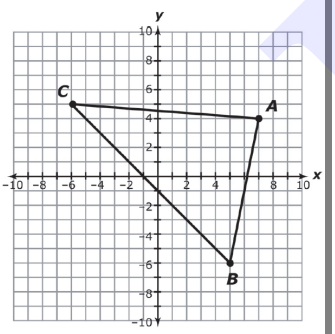
A.



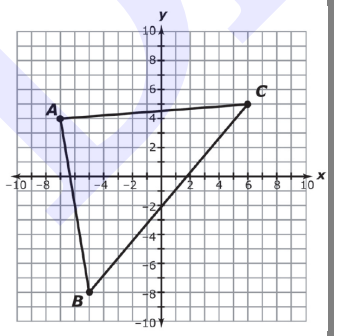
C.



B.



D.



22. A conditional statement is shown.

If a triangle has a 90° angle, then it is right triangle.

Create a statement that represents the contrapositive of this conditional.

Choose the correct answer from each drop-down menu.

If a triangle _____ Choice 1 _____, then it _____ Choice 2 _____.

Choice 1:

A. has a 90° angle **B.** does not have a 90° angle **C.** is a right triangle

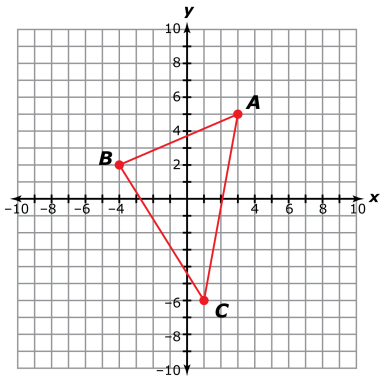
D. is not a right triangle

Choice 2:

A. has a 90° angle **B.** does not have a 90° angle **C.** is a right triangle

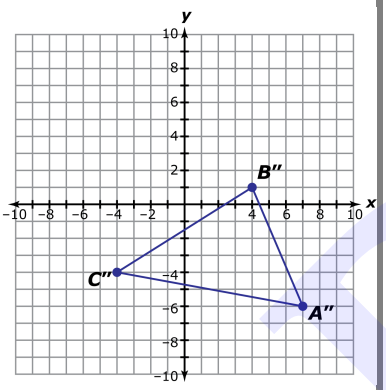
D. is not a right triangle

23. Triangle *ABC* is shown on the coordinate grid.

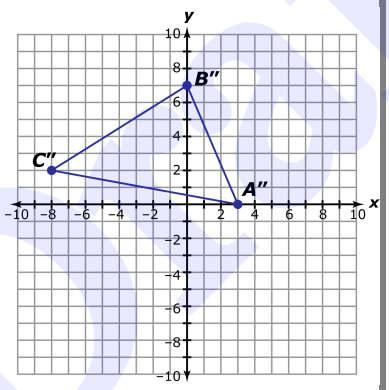


If triangle *ABC* is rotated 90° clockwise about the origin and then translated using the rule $(x, y) \rightarrow (x - 2, y + 3)$, which graph represents triangle $A''B''C''$?

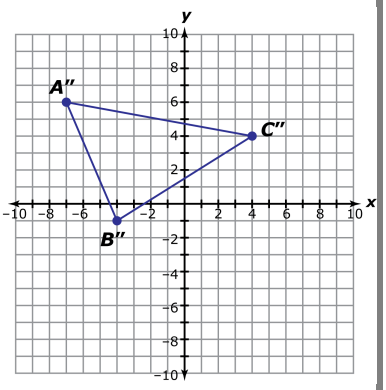
A.



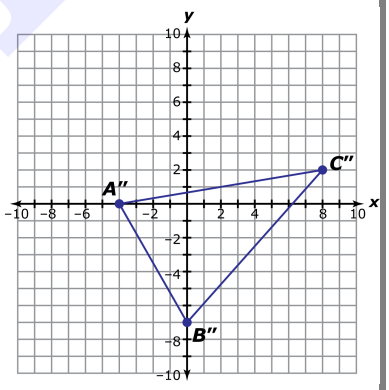
C.



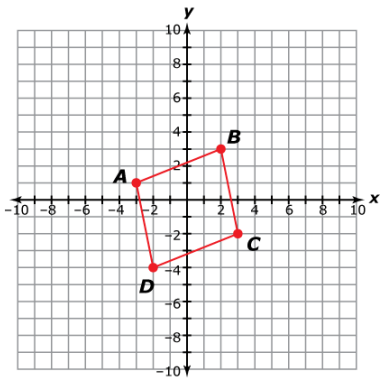
B.



D.

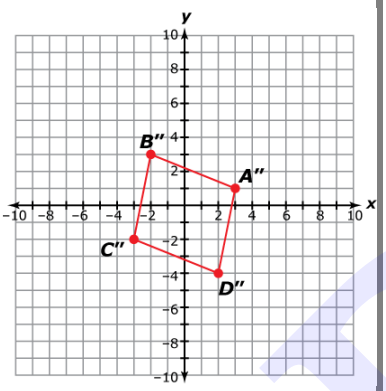


24. Parallelogram *ABCD* is shown in the coordinate grid.

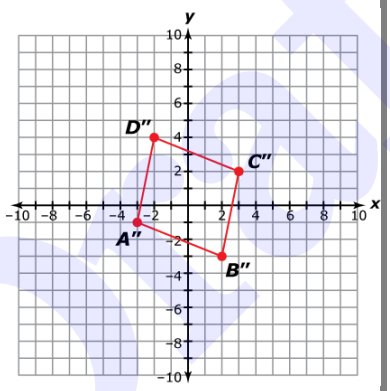


Parallelogram *ABCD* is reflected across the line $y = x$ and then rotated 90° counter-clockwise. Which graph represents parallelogram $A''B''C''D''$?

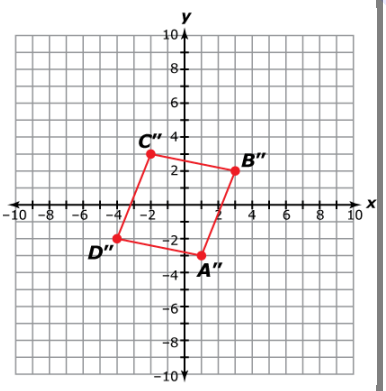
A.



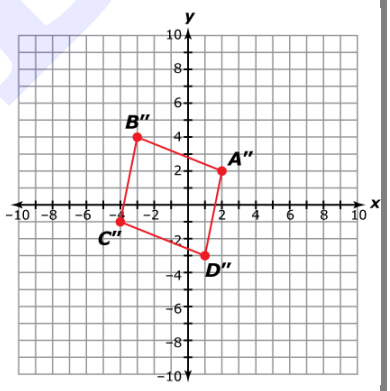
C.



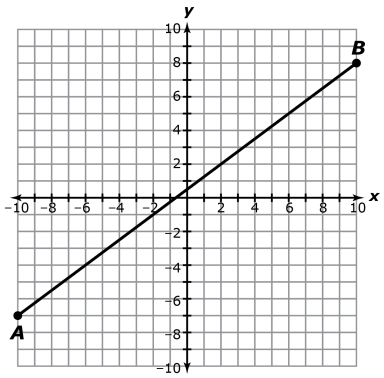
B.



D.



25. Segment $\overline{AB}$ is shown on the coordinate grid.



What are the coordinates for the point that is $\frac{2}{5}$ the distance from point *B* to point *A*?

A. (-6, -4)

B. (-2, -1)

C. (2, 2)

D. (6, 5)

26. What is the equation of a line that passes through the point (-3, 2) and is parallel to the line $x = 4$?

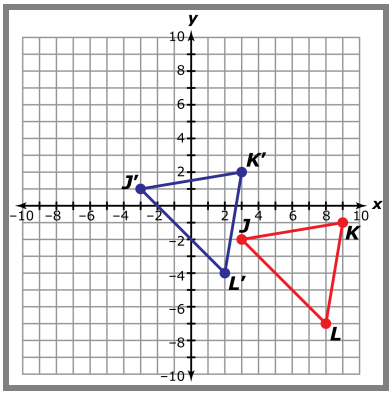
A. $x = 3$

B. $x = -3$

C. $y = 2$

D. $y = -2$

27. Triangle JKL is transformed to create triangle $J'K'L'$.



Which algebraic representation is used to map $\triangle JKL$ to $\triangle J'K'L'$?

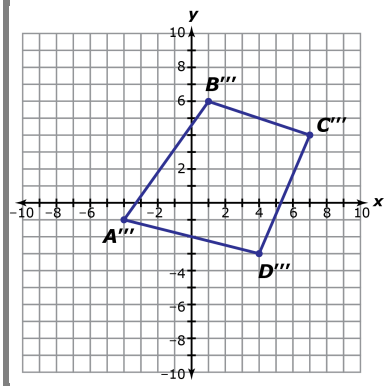
A. $(x,\ y) \rightarrow (x + 6,\ y - 3)$

B. $(x,\ y) \rightarrow (x - 6,\ y + 3)$

C. $(x,\ y) \rightarrow (x - 7,\ y + 4)$

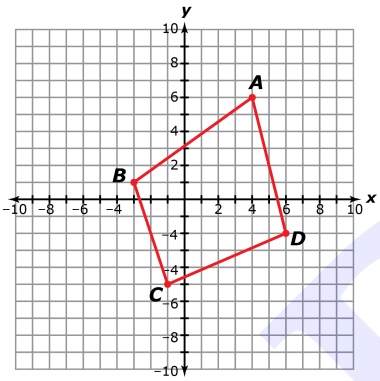
D. $(x,\ y) \rightarrow (x + 7,\ y - 4)$

28. Quadrilateral $A'''B'''C'''D'''$ is shown on the coordinate grid.

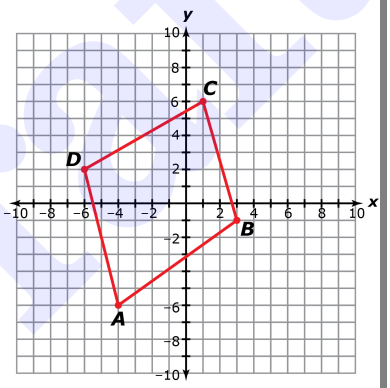


If quadrilateral $ABCD$ was rotated 90° counterclockwise about the origin then reflected across the x-axis, then translated 2 units right and 3 units up to create quadrilateral $A'''B'''C'''D'''$, which graph represents quadrilateral $ABCD$?

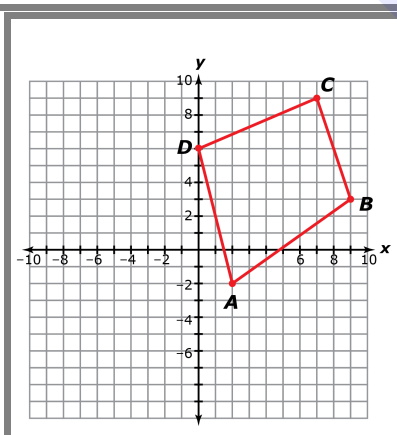
A.



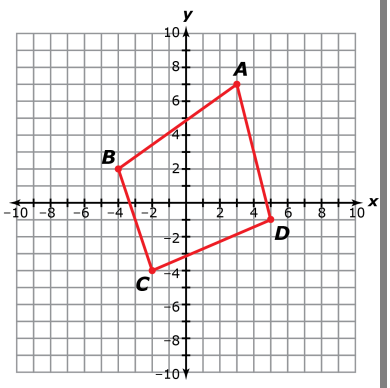
C.



B.



D.



29. What is the equation of the line that passes through the point $(-7,\ 2)$ and is parallel to the line $3x + y = 5$?

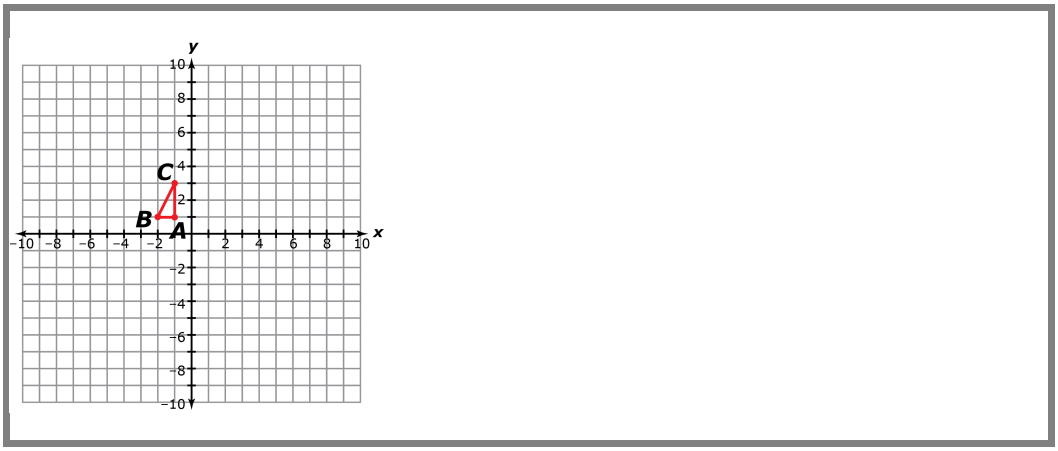
A. $y = -3x - 19$

B. $y = -3x - 1$

C. $y = -\frac{1}{3}x - \frac{23}{3}$

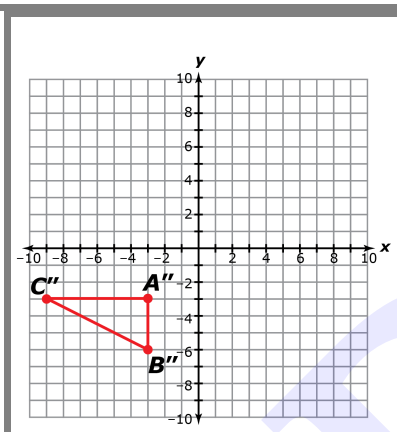
D. $y = -\frac{1}{3}x + \frac{13}{3}$

30. Triangle *ABC* is shown on the coordinate grid.

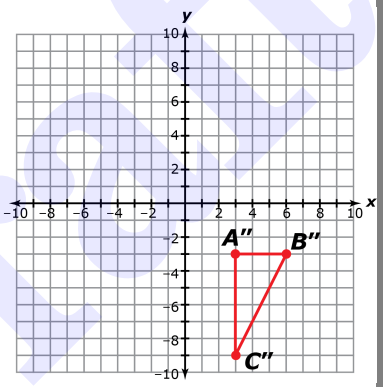


If $\triangle ABC$ is rotated 90° clockwise about the origin dilated by a scale factor of 3 with the origin as the center of dilation, which graph represents $\triangle A''B''C''$?

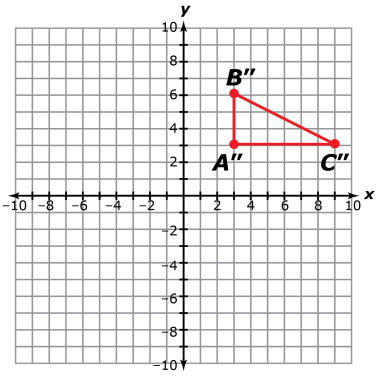
A.



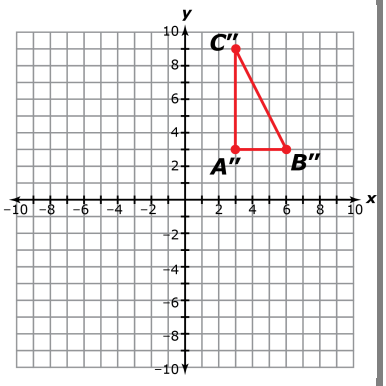
C.



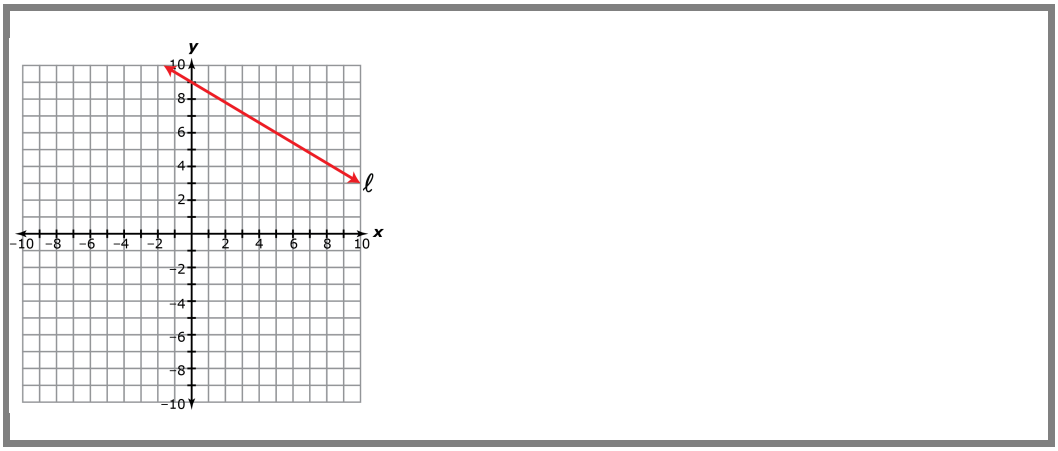
B.



D.



31. Line ℓ is shown on the the coordinate grid.



Which equation represents a line that is perpendicular to line ℓ and passes through point (-2, -4)?

A. $5x + 3y = -26$

B. $5x + 3y = -22$

C. $5x - 3y = -14$

D. $5x - 3y = 2$

32. Using the midpoint formula, what is the midpoint of $\overline{AB}$ with endpoints *A*(3, 7) and *B*(–5, 2)?

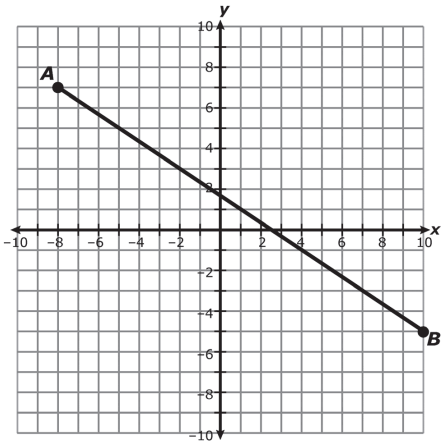
A. $\left(\frac{9}{2}, -1\right)$

B. $\left(1, \frac{9}{2}\right)$

C. $\left(-1, \frac{9}{2}\right)$

D. $\left(4, \frac{9}{2}\right)$

33. $\overline{AB}$ is shown on the coordinate grid.



If point *Q* is $\frac{1}{3}$ the distance from point *A* to point *B*, what are the coordinates of point *Q*?

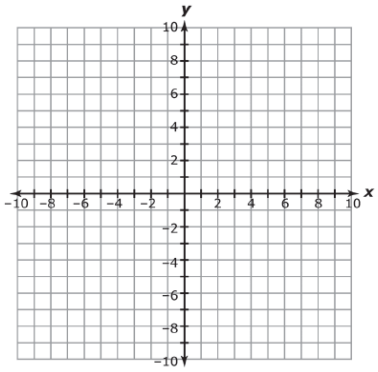
A. $(1, 1)$

B. $(6, 4)$

C. $(-2, 3)$

D. $(4, -1)$

34. $\overleftrightarrow{AB}$ passes through points $A(-3, 9)$ and $B(4, -5)$, and $\overleftrightarrow{CD}$ passes through points $C(-2, -1)$ and $D(3, -11)$.



What is the relationship between $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$?

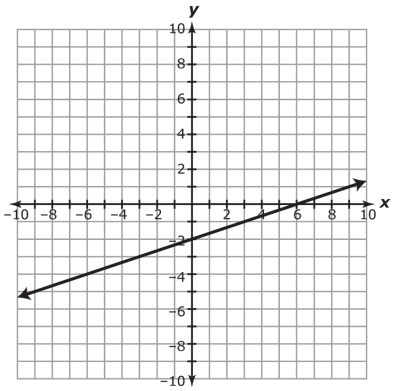
A. The lines are parallel.

B. The lines are perpendicular.

C. The lines are the same line.

D. The lines have no significant relationship.

35. The graph of $y = \frac{1}{3}x - 2$ is shown on the coordinate grid.



Which equation represents a line that passes through the point $(-3, 6)$ and is parallel to the line $y = \frac{1}{3}x - 2$?

A. $y = -3x - 3$

B. $y = -3x + 15$

C. $y = \frac{1}{3}x - 5$

D. $y = \frac{1}{3}x + 7$

36. If the endpoints of $\overline{PQ}$ are (–5, 6) and (3, –2), what is the midpoint of $\overline{PQ}$?

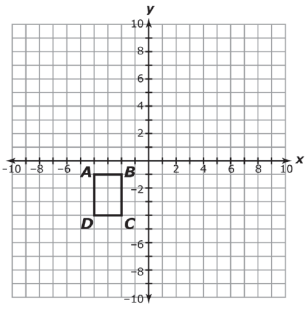
A. $(-1, 2)$

B. $(2, -1)$

C. $(-4, 4)$

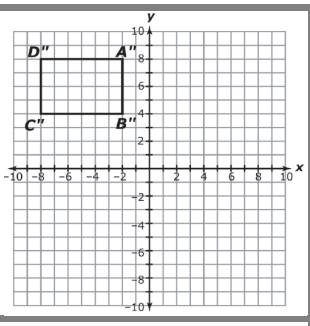
D. $(4, -4)$

37. Rectangle *ABCD* is shown on the coordinate grid.

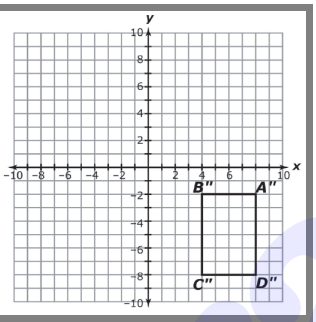


If rectangle *ABCD* is rotated 90° counterclockwise about the origin and then dilated by a scale factor of 2 with the origin as the center of dilation, which graph represents rectangle *A*"*B*"*C*"*D*"?

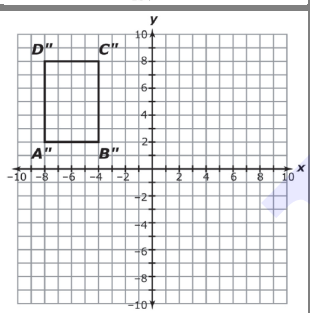
A.



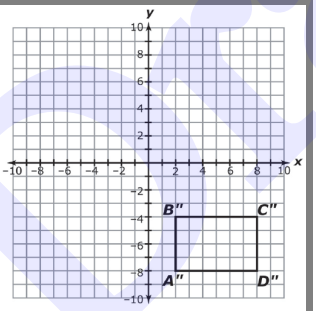
C.



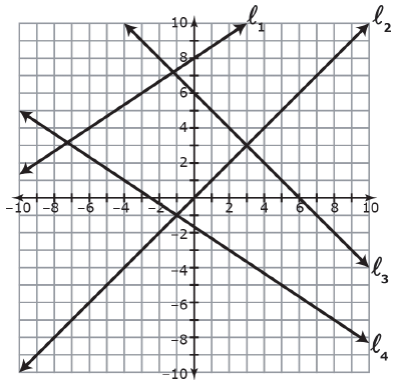
B.



D.



38. Four lines are shown on the coordinate plane.



Based on this graph, which pair of lines are perpendicular?

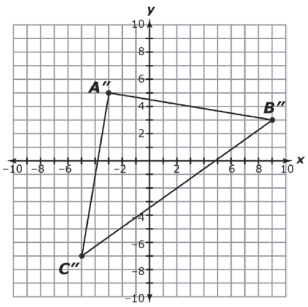
A. $l_1 \perp l_2$

B. $l_1 \perp l_3$

C. $l_2 \perp l_3$

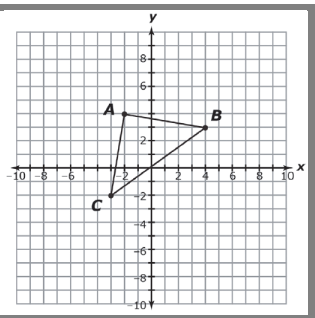
D. $l_2 \perp l_4$

39. Triangle *A″B″C″* is shown on the coordinate grid.

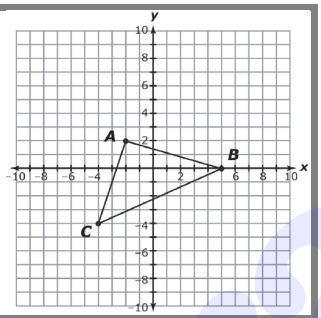


If Δ *ABC* was dilated by a scale factor of 2 with the origin as the center of dilation and then translated using the rule $(x,\ y) \rightarrow (x + 1,\ y - 3)$ to create Δ *A″B″C″*, which graph represents Δ *ABC*?

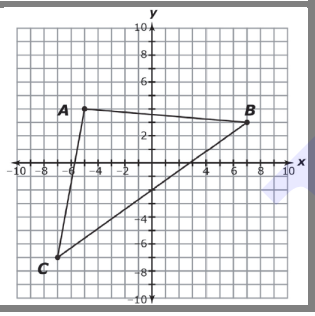
A.



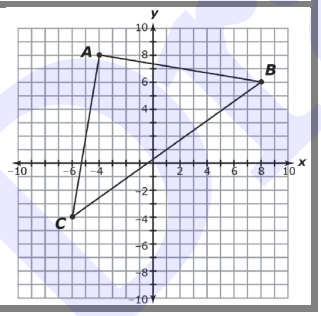
C.



B.



D.



40. What is the equation of the line that is perpendicular to $6x + 8y = 24$ and passes through the point (–12, 8)?

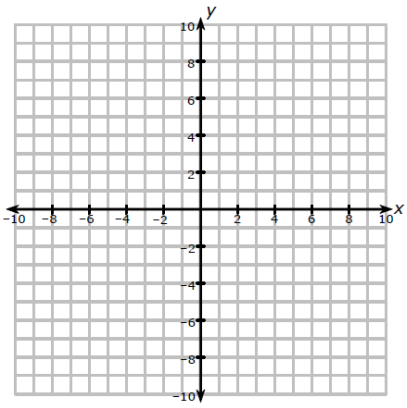
A. $y = \frac{4}{3}x - 8$

B. $y = \frac{4}{3}x + 24$

C. $y = \frac{3}{4}x + 17$

D. $y = \frac{3}{4}x - 1$

41. Destinee's house is located at $(2, 3)$ on the coordinate grid. El Ticonzito is located at $(-4, -2)$.



If El Ticonzito is the midpoint between Destinee's house and Ana's house, what is the approximate distance between Ana's house and Destinee's house?

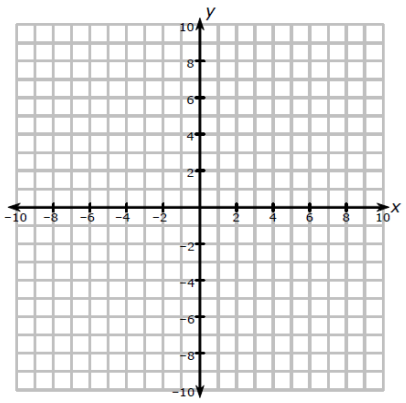
A. 6.63 miles

B. 7.50 miles

C. 11.00 miles

D. 15.62 miles

42. The midpoint of $\overline{AB}$ is $(2, 7)$ and point *A* is located at $(5, -3)$.



What are the coordinates of point *B*?

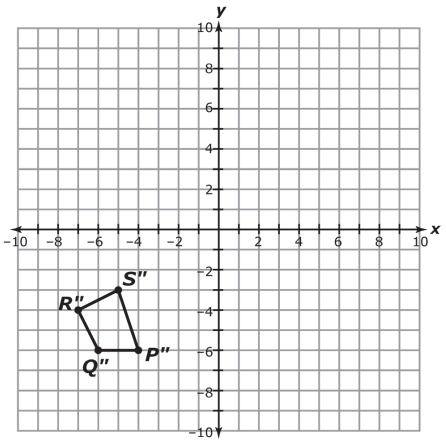
A. $(-3, 11)$

B. $(-1, 17)$

C. $(7, 4)$

D. $(9, 11)$

43. Quadrilateral *PQRS* was translated under the rule $(x, y) \rightarrow (x + 3, y + 2)$, then rotated 180° about the origin to create quadrilateral *P"Q"R"S"*.



What are the coordinates of point *Q*?

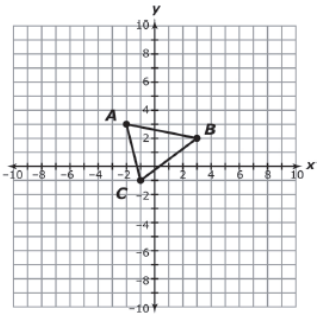
A. (−9, −8)

B. (−3, −4)

C. (9, 8)

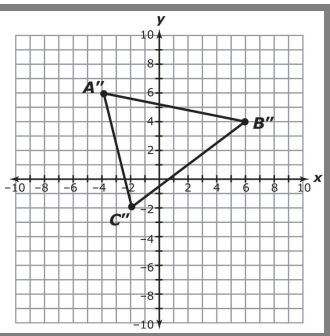
D. (3, 4)

44. Triangle *ABC* is shown on the coordinate grid.

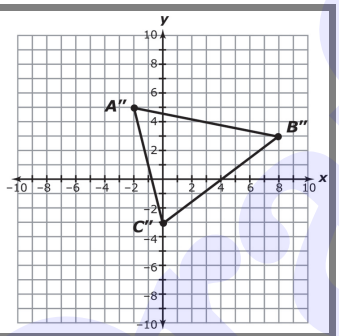


If Δ *ABC* is dilated by a scale factor of 2 with the origin as the center of dilation and then translated using the rule $(x,\ y) \rightarrow (x + 3,\ y - 1)$, which graph represents Δ *A*"*B*"*C*"?

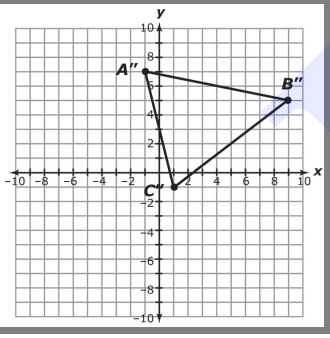
A.



C.



B.



D.