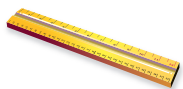


Kentucky Summative Assessments



Grade 8 Mathematics Released Items 2022



1

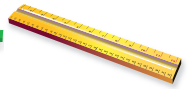
MA0820022_1

The system of equations shown is graphed on a coordinate plane.

$$\begin{cases} y = 2x - 5 \\ y = 2x - 6 \end{cases}$$

Which statement describes the solution of this system of equations?

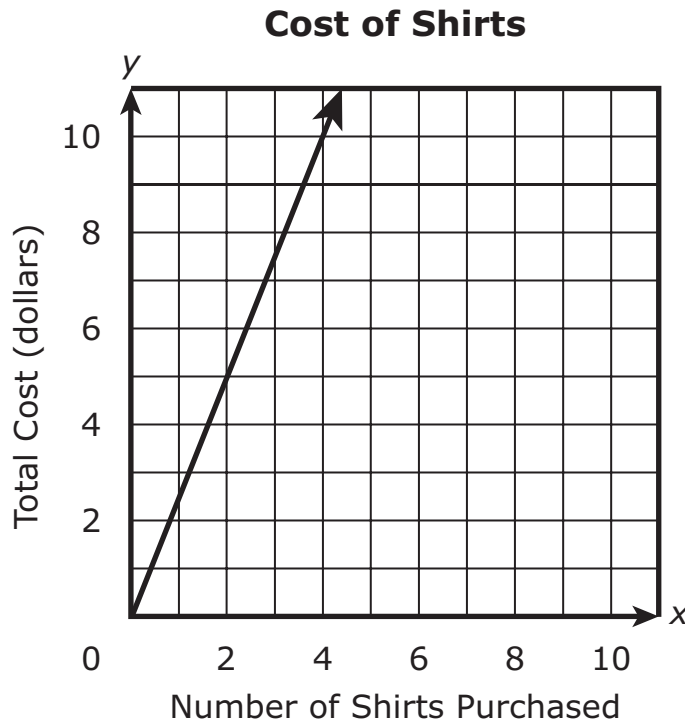
- A** There is no solution because the graphed lines will never intersect.
- B** There is no solution because the graphed lines are perpendicular to each other.
- C** There are infinitely many solutions because the graphed lines are parallel to each other.
- D** There are infinitely many solutions because the graphed lines pass through all the same points.



2

MA0820026_1,4

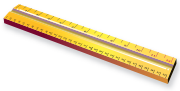
Jason and Beth both purchase shirts at two different stores. At the store that Jason goes to he can purchase 2 shirts for \$5. The cost of each shirt that Jason purchases is the same. The coordinate plane represents the total cost, in dollars, of x shirts at the store where Beth purchases her shirts.



Which statements are true about this situation?

Select **two** correct answers.

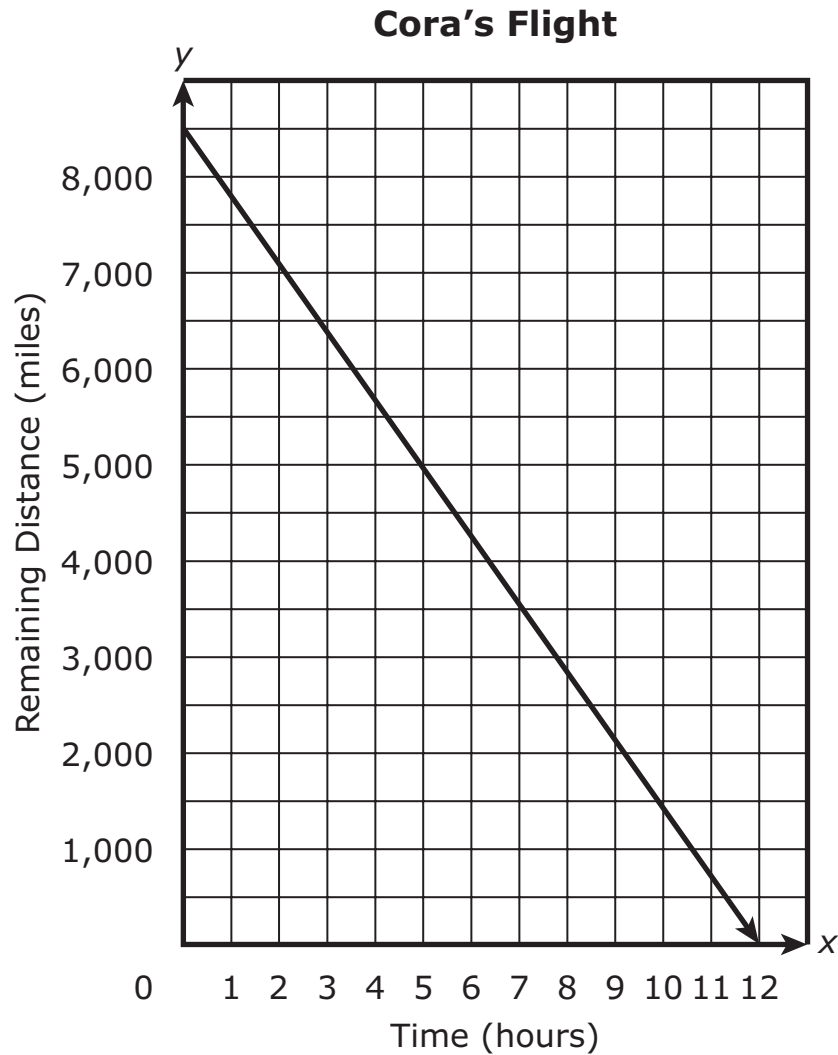
- A** Beth can purchase 5 shirts for a total cost of \$12.50.
- B** Beth will pay \$0.50 more for each shirt than Jason will pay.
- C** Jason will pay a total of \$10.50 for all of the shirts he purchases.
- D** Beth and Jason can each purchase their shirts at the same price.
- E** Jason will always pay more for the same number of shirts than Beth will pay.



3

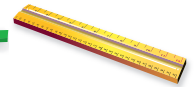
MA0820130_2

The line graphed on the coordinate plane represents Cora's airplane flight from Louisville, Kentucky, to Athens, Greece.



Which statement is true about Cora's flight?

- A** The plane traveled 12,000 miles.
- B** The plane traveled 8,500 miles.
- C** The plane traveled at an increasing rate of 708 miles per hour.
- D** The plane traveled at a decreasing rate of 708 miles per hour.



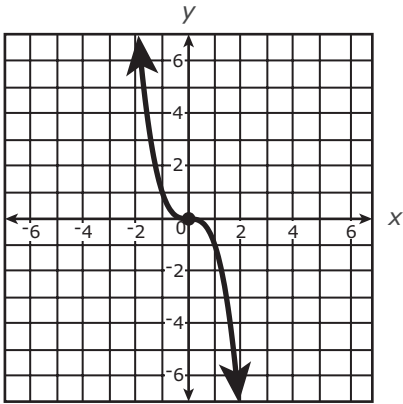
4

MA0820032_1,2

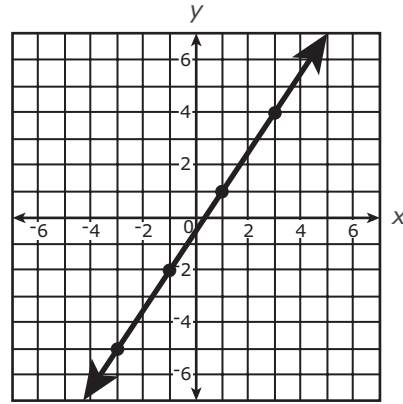
Which graphs represent a function?

Select **two** correct answers.

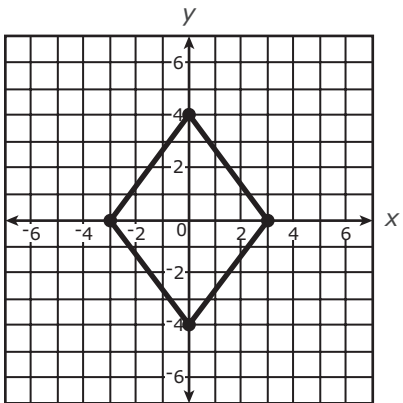
A



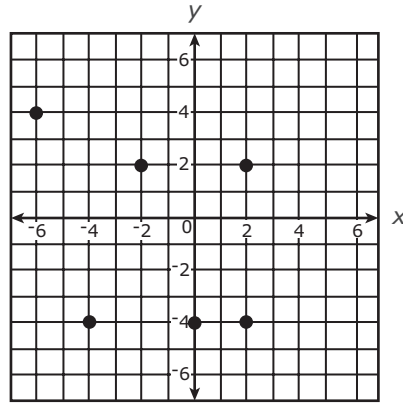
B



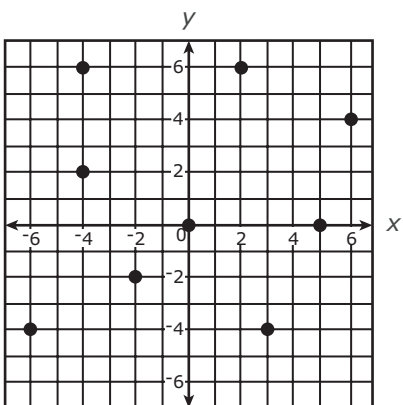
C

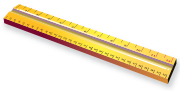


D



E

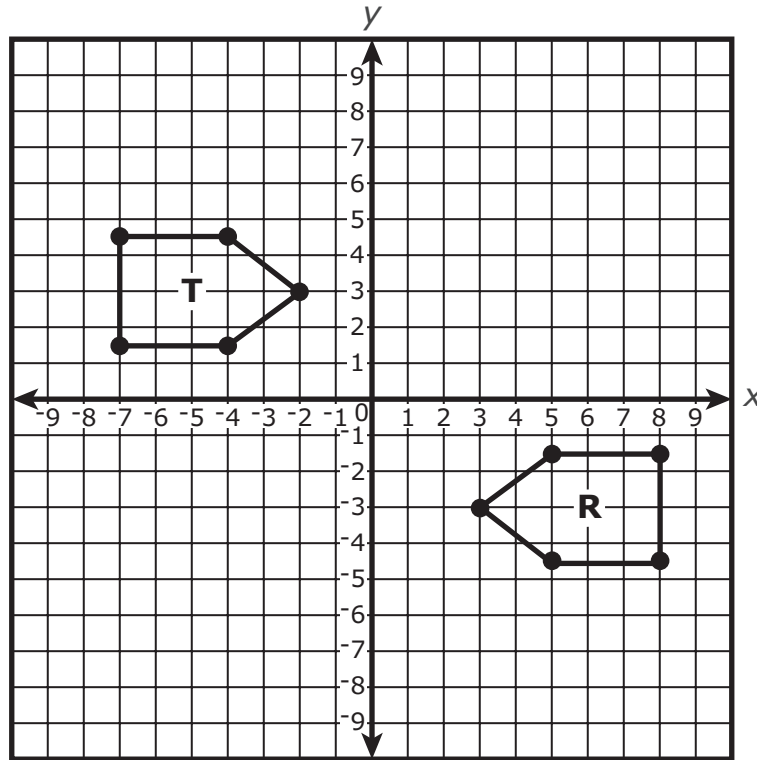




5

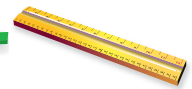
MA0820071

Figure R and Figure T are shown on the coordinate plane. Figure R is congruent to Figure T.



Which sequence of geometric transformations can be used to prove that Figure R is congruent to Figure T? Include any necessary units, direction, axes, or degrees in your description.

Enter your answer and your descriptions in the space provided.



6

MA0819011_1

Maria walks dogs during the summer to earn money. She calculates her profit, P , using the equation $P = \frac{15}{4}n - 10$, where n is the number of hours she works. What is the rate of change in this situation?

- A** 3.75 dollars per hour
- B** 6.25 dollars per hour
- C** 4.00 dollars per hour
- D** 10.00 dollars per hour

7

MA0820005_4

Compare the numbers shown.

$$\sqrt{5}, 3.2, \sqrt{13}, 2.95, \sqrt{8}$$

Which list shows the numbers in order from least to greatest?

- A** $\sqrt{5}, 2.95, \sqrt{8}, 3.2, \sqrt{13}$
- B** $\sqrt{5}, 2.95, 3.2, \sqrt{8}, \sqrt{13}$
- C** $\sqrt{5}, \sqrt{8}, 2.95, \sqrt{13}, 3.2$
- D** $\sqrt{5}, \sqrt{8}, 2.95, 3.2, \sqrt{13}$



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