

NAME _____

DATE _____

PERIOD _____

EOC REVIEW: RC#4

1. What is the x-coordinate of the solution to the system of linear equations below?

$$4x + 5y = 8$$

$$2x - 3y = -18$$

A. -4

C. 3

B. -3

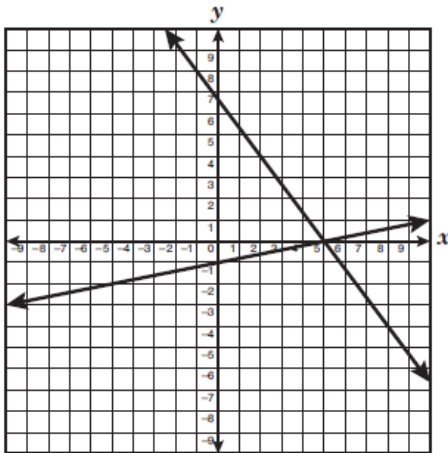
D. 4

2. Which of the following graphs best represents the solution to the system of linear equations shown below?

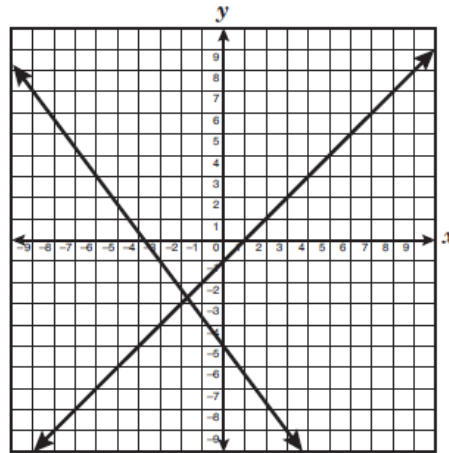
$$x + 5y = -5$$

$$4x - 3y = -20$$

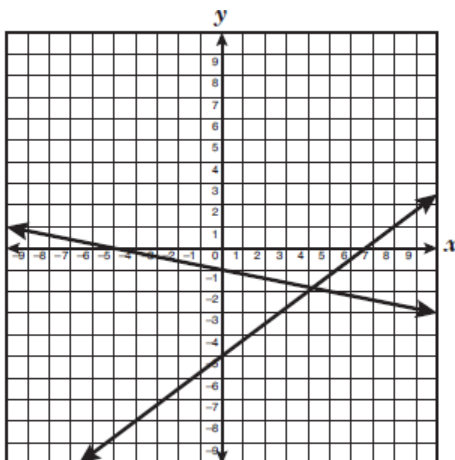
A.



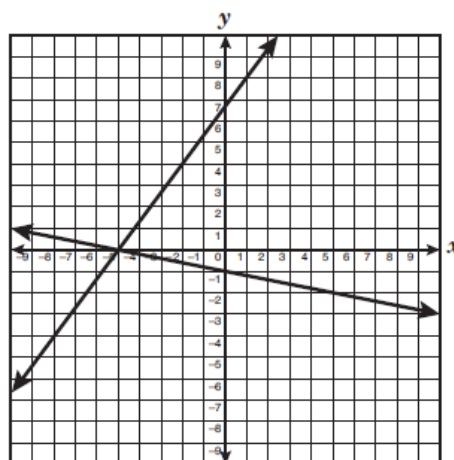
C.



B.



D.



3. At a college bookstore, Carla purchased a math textbook and a novel that cost a total of \$54, not including tax. If the price of the math textbook, m , is \$8 more than 3 times the price of the novel, n , which system of linear equations could be used to determine the price of each book?

A. $m + n = 8$

$m = 3n + 54$

C. $m + n = 54$

$m = 3n + 8$

B. $m + n = 8$

$m = 3n - 54$

D. $m + n = 54$

$m = 3n - 8$

4. Ms. Collins's car traveled between 25 and 29 miles per gallon of gasoline on a recent road trip. If the road trip was 614 miles, which could be the number of gallons of gasoline that Ms. Collins used during this road trip?

A. 23 gal

B. 29 gal

C. 21 gal

D. 25 gal

5. Mrs. Travis wants to have a clown deliver balloons to her secretary's office. Clowns R Fun charges \$1.25 per balloon and \$6 for delivery. Singing Balloons charges \$1.95 per balloon and \$2 for delivery. What is the minimum number of balloons Mrs. Travis needs to purchase in order for Clowns R Fun to have a lower price than Singing Balloons?

A. 5

B. 6

C. 11

D. 12

6. A chemist started an experiment with 5 grams of a chemical. The chemical was used at a rate of 0.01 gram per minute. Which equation best describes the relationship between c , the amount of chemical remaining in grams, and t , the time in minutes?

F. $c = 5.01t$

G. $c = 4.99t$

H. $c = 5 - 0.01t$

J. $c = 0.01t - 5$

7. An investor has a total of 45 one-ounce ingots, made of either gold or silver, worth \$7636.50. The value of a gold ingot is \$280.00, and the value of a silver ingot is \$4.25. Which system of equations can be used to find g , the number of gold ingots, and s , the number of silver ingots?

A. $g - s = 45$
 $280.00g + 4.25s = 7636.50$

C. $g + s = 45$
 $4.25g + 280.00s = 7636.50$

B. $g + s = 45$
 $280.00g + 4.25s = 7636.50$

D. $g - s = 7636.50$
 $280.00g + 4.25s = 45$

8. An oyster provides approximately 17 calories, and a shrimp provides approximately 26 calories. Jay wants to consume no more than 300 calories eating oysters and shrimp. Which inequality best represents the number of oysters, x , and the number of shrimp, y , that Jay can eat and stay within this limit?

F. $(17 + 26)(x + y) > 300$

G. $(17 + x) + (26 + y) > 300$

H. $(17 + 26)(x + y) \leq 300$

J. $17x + 26y \leq 300$

9. Some students want to order shirts with their school logo. One company charges \$9.65 per shirt plus a setup fee of \$43. Another company charges \$8.40 per shirt plus a \$58 fee. For what number of shirts would the cost be the same?

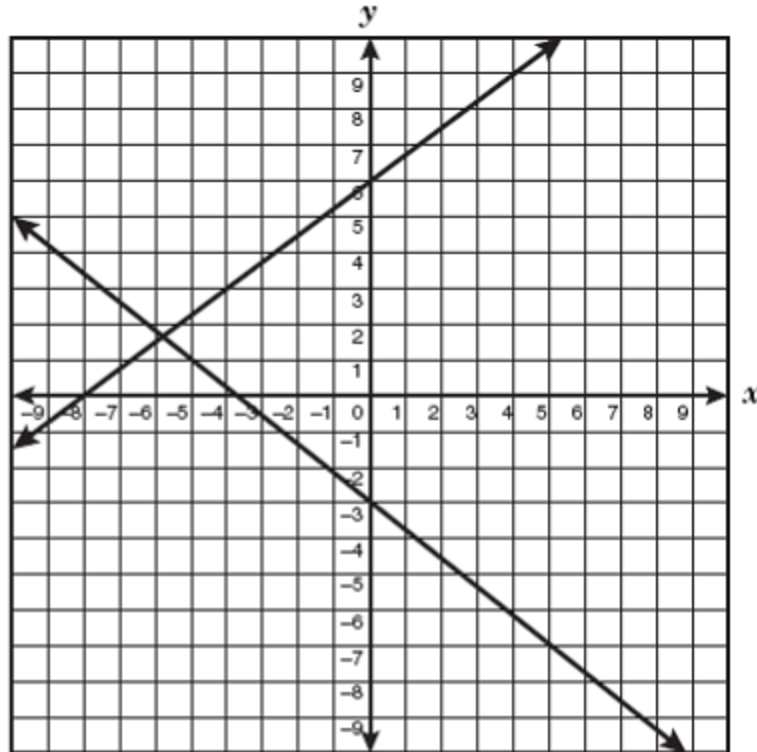
A. 6

B. 12

C. 81

D. 159

10. Look at the system of linear equations graphed on the coordinate grid below.



Which of the following is closest to the solution to this system of linear equations?

- A. $(-5\frac{1}{2}, 2\frac{1}{4})$ C. $(-6\frac{1}{4}, 1\frac{3}{4})$
- B. $(-5\frac{3}{4}, 1\frac{2}{3})$ D. $(-5\frac{2}{3}, \frac{3}{4})$

11. A waitress at a restaurant calculated her daily pay, p , using the equation $p = 0.15f + 17.60$, where f is the total amount of food purchased by customers. If the waitress sold between \$600.00 and \$720.00 in food, then the amount of her daily pay should be between –

- F. \$40.00 and \$48.00
- G. \$57.60 and \$65.60
- H. \$90.00 and \$108.00
- J. \$107.60 and \$125.60