

Name.....Period.....

Which of the following is equivalent to the expression below?

$$(3m^2 + 4) + (8m^2 - 5m)$$

- A. $11m^2 - 5m + 4$
- B. $7m^2 + 13m + 4$
- C. $11m^2 - m$
- D. $7m^2 + 3m$

Which values of x and y make the system of equations below true?

$$\begin{aligned} 2x - y &= -1 \\ 3x - y &= -3 \end{aligned}$$

- A. $x = -4; y = -7$
- B. $x = -2; y = -3$
- C. $x = 2; y = 5$
- D. $x = 4; y = 15$

Which of the following is equivalent to the expression below?

$$-3(x - 2)$$

- A. $-3x - 2$
- B. $-3x + 2$
- C. $-3x - 6$
- D. $-3x + 6$

The sum of the lengths of any two sides of a triangle must be greater than the length of the remaining side.

The lengths of two sides of a triangle are 8 inches and 13 inches. Which of the following represents x , the possible length in inches of the remaining side of the triangle?

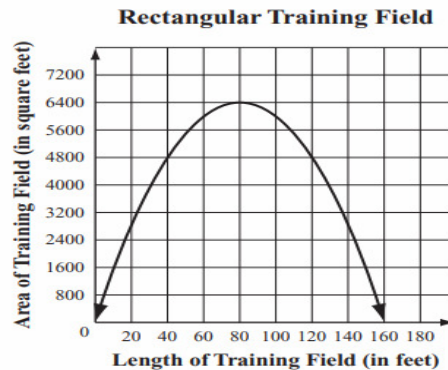
- A. $5 < x < 21$
- B. $5 \leq x \leq 21$
- C. $x < 5$ or $x > 21$
- D. $x \leq 5$ or $x \geq 21$

Which of the following is equivalent to the expression below?

$$25 - 9x^2$$

- A. $(5 + 3x)(5 - 3x)$
- B. $(5 - 3x)(5 - 3x)$
- C. $(3x + 5)(3x - 5)$
- D. $(3x - 5)(3x - 5)$

- 40 A dog trainer will use 320 feet of fence to create a rectangular training field. The graph below displays the relationship between the length, in feet, of the training field and the area, in square feet, of the training field.



What is the length of the rectangular training field that has the greatest area?

- A. 40 feet
- B. 80 feet
- C. 160 feet
- D. 180 feet

Wyatt owns a food truck. He offers a selection of 8 types of sandwiches and 4 types of tacos.

- He will increase his selection of sandwiches by 1 per month.
- He will increase his selection of tacos by 2 per month.

In how many months will Wyatt offer an equal number of sandwich and taco selections?

- A. 2 months
- B. 4 months
- C. 8 months
- D. 12 months

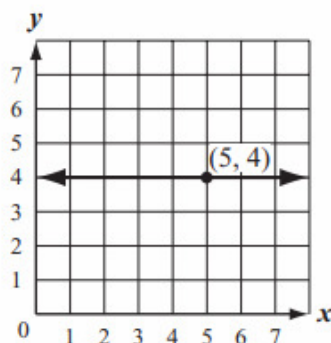
A geometric sequence with its first term missing is shown below.

$\underline{\quad}, 2, 8, 32, \dots$

What is the first term in the sequence?

- A. 0
- B. $\frac{1}{4}$
- C. $\frac{1}{2}$
- D. 1

A line passes through the point (5, 4) on a coordinate grid, as shown below.



Which of the following represents an equation of the line?

- A. $x = 4$
- B. $y = 4$
- C. $x = 5$
- D. $y = 5$

Nancy, Bryan, and Jamie combined their money to purchase a laptop. Together they paid a total of \$490 for the laptop, including tax.

- Nancy paid \$50 more than Bryan paid.
- Bryan paid twice as much as Jamie paid.

How much did Nancy pay?

- A. \$108
- B. \$176
- C. \$226
- D. \$295

2.

What is **one** solution of the quadratic equation below?

$$x^2 + 3x - 10 = 0$$