

Spiraling Practice

$\sqrt{52}$

$\sqrt{180}$

$3\sqrt{20}$

Factor the following.

$x^2 - 25$

$x^2 - 6x + 5$

$2x^2 + 7x + 6$

What is the vertex of the graph of the quadratic function $f(x) = x^2 + 6x + 10$?

- F** (3, -1)
- G** (-3, -1)
- H** (-3, 1)
- J** (3, 1)

$$y = x^2 - 4x + 4$$
$$y = 4 - x$$

If the ordered pair (x, y) satisfies the system of equations above, what is one possible value of x?

The equations below are linear equations of a system where a, b, and c are positive integers.

$$ay + bx = c$$
$$ay - bx = c$$

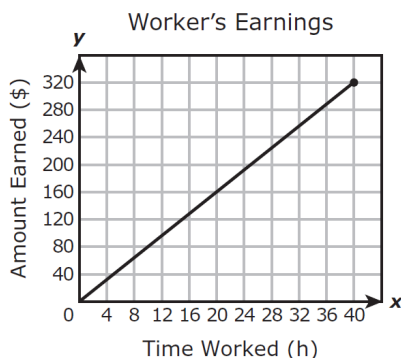
Which of the following describes the graph of at least 1 such system of equations in the standard (x, y) coordinate plane?

- I. 2 parallel lines
- II. 2 intersecting lines
- III. A single line

- A.** I only
- B.** II only
- C.** III only
- D.** I or II only

The graph below shows the relationship between the number of dollars a worker earns and the number of hours worked.

E. I, II, or III



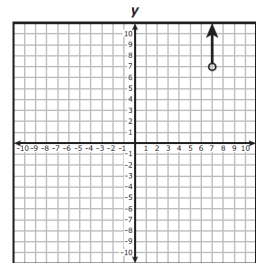
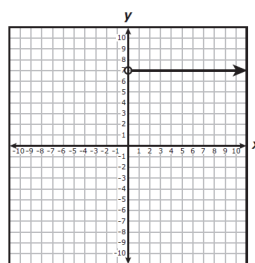
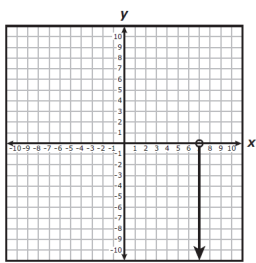
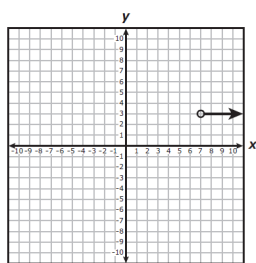
What does the slope of the graph represent?

- A The number of hours of work it takes to earn \$320
- B The amount of money earned per hour
- C The amount earned for 40 hours of work
- D The number of hours worked per dollar earned

The perimeter of a rectangle is 42 centimeters. The length of the rectangle can be represented by $(x + 4)$, and its width can be represented by $(2x - 7)$. What are the dimensions of this rectangle in centimeters?

- F Length = 10 and width = 11
- G Length = 8 and width = 13
- H Length = 6 and width = 15
- J Length = 12 and width = 9

Which graph shows a function with a domain of all real numbers greater than 7?



What is the sum of the solutions to $(x - 6)(x + 0.7) = 0$?

- A) -6.7
- B) -5.3
- C) 5.3
- D) 6.7