

NO Calculator

1 8 SYSTEM OF EQUATIONS 5 8

Multiple Choice

$$3x + x + x + x - 3 - 2 = 7 + x + x$$

In the equation above, what is the value of  $x$  ?

- A)  $-\frac{5}{7}$
- B) 1
- C)  $\frac{12}{7}$
- D) 3

The width of a rectangular dance floor is  $w$  feet. The length of the floor is 6 feet longer than its width. Which of the following expresses the perimeter, in feet, of the dance floor in terms of  $w$  ?

- A)  $2w + 6$
- B)  $4w + 12$
- C)  $w^2 + 6$
- D)  $w^2 + 6w$

1 2

If  $5x + 6 = 10$ , what is the value of  $10x + 3$  ?

- A) 4
- B) 9
- C) 11
- D) 20

6 8

$$y > 2x - 1$$

$$2x > 5$$

Which of the following consists of the  $y$ -coordinates of all the points that satisfy the system of inequalities above?

- A)  $y > 6$
- B)  $y > 4$
- C)  $y > \frac{5}{2}$
- D)  $y > \frac{3}{2}$

1 1

If  $\frac{x-1}{3} = k$  and  $k = 3$ , what is the value of  $x$  ?

- A) 2
- B) 4
- C) 9
- D) 10

9 1

$$3x + 4y = -23$$

$$2y - x = -19$$

What is the solution  $(x, y)$  to the system of equations above?

- A)  $(-5, -2)$
- B)  $(3, -8)$
- C)  $(4, -6)$
- D)  $(9, -6)$

2 2

$$x + y = 0$$

$$3x - 2y = 10$$

Which of the following ordered pairs  $(x, y)$  satisfies the system of equations above?

- A)  $(3, -2)$
- B)  $(2, -2)$
- C)  $(-2, 2)$
- D)  $(-2, -2)$

3 7

$$x = y - 3$$

$$\frac{x}{2} + 2y = 6$$

Which ordered pair  $(x, y)$  satisfies the system of equations shown above?

- A)  $(-3, 0)$
- B)  $(0, 3)$
- C)  $(6, -3)$
- D)  $(36, -6)$

6 6

If  $x = \frac{2}{3}y$  and  $y = 18$ , what is the value of  $2x - 3$  ?

- A) 21
- B) 15
- C) 12
- D) 10

NO Calculator  
SYSTEM OF EQUATIONS  
Student Response

**16** **7**

If  $2x + 8 = 16$ , what is the value of  $x + 4$  ?

**18** **5**

$$\begin{aligned}\frac{1}{2}(2x + y) &= \frac{21}{2} \\ y &= 2x\end{aligned}$$

The system of equations above has solution  $(x, y)$ .  
What is the value of  $x$  ?

**17** **5**

$$2(p + 1) + 8(p - 1) = 5p$$

What value of  $p$  is the solution of the equation above?

**18** **1**

$$\begin{aligned}x + y &= -9 \\ x + 2y &= -25\end{aligned}$$

According to the system of equations above, what is the value of  $x$  ?

**17** **6**

$$\frac{2}{3}t = \frac{5}{2}$$

What value of  $t$  is the solution of the equation above?

**18** **8**

$$\begin{aligned}-x + y &= -3.5 \\ x + 3y &= 9.5\end{aligned}$$

If  $(x, y)$  satisfies the system of equations above, what is the value of  $y$  ?

**20** **2**

$$\begin{aligned}ax + by &= 12 \\ 2x + 8y &= 60\end{aligned}$$

In the system of equations above,  $a$  and  $b$  are constants. If the system has infinitely many solutions, what is the value of  $\frac{a}{b}$  ?