

WITH Calculator

SYSTEM OF EQUATIONS

Multiple Choice

1 8

One pound of grapes costs \$2. At this rate, how many dollars will c pounds of grapes cost?

- A) $2c$
- B) $2 + c$
- C) $\frac{2}{c}$
- D) $\frac{c}{2}$

4 5

If $3(c + d) = 5$, what is the value of $c + d$?

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

4 1

If $16 + 4x$ is 10 more than 14, what is the value of $8x$?

- A) 2
- B) 6
- C) 16
- D) 80

8 1

For what value of n is $|n - 1| + 1$ equal to 0 ?

- A) 0
- B) 1
- C) 2
- D) There is no such value of n .

9 7

$$9ax + 9b - 6 = 21$$

Based on the equation above, what is the value of $ax + b$?

- A) 3
- B) 6
- C) 8
- D) 12

11 6

$$\begin{aligned} 7x + 3y &= 8 \\ 6x - 3y &= 5 \end{aligned}$$

For the solution (x, y) to the system of equations above, what is the value of $x - y$?

- A) $-\frac{4}{3}$
- B) $\frac{2}{3}$
- C) $\frac{4}{3}$
- D) $\frac{22}{3}$

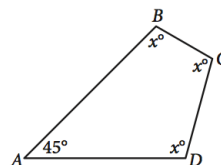
12 5

$$\begin{aligned} \frac{1}{2}y &= 4 \\ x - \frac{1}{2}y &= 2 \end{aligned}$$

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

- A) 3
- B) $\frac{7}{2}$
- C) 4
- D) 6

14 7



In the figure above, what is the value of x ?

- A) 45
- B) 90
- C) 100
- D) 105

16 7

If $a - b = 12$ and $\frac{b}{2} = 10$, what is the value

of $a + b$?

- A) 2
- B) 12
- C) 32
- D) 52

18 1

$$\begin{aligned} y &< -x + a \\ y &> x + b \end{aligned}$$

In the xy -plane, if $(0, 0)$ is a solution to the system of inequalities above, which of the following relationships between a and b must be true?

- A) $a > b$
- B) $b > a$
- C) $|a| > |b|$
- D) $a = -b$

28 6

Two different points on a number line are both 3 units from the point with coordinate -4 . The solution to which of the following equations gives the coordinates of both points?

- A) $|x + 4| = 3$
- B) $|x - 4| = 3$
- C) $|x + 3| = 4$
- D) $|x - 3| = 4$

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Student Response

32 8

$$x - \frac{1}{2}a = 0$$

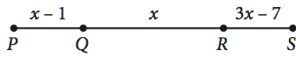
If $x = 1$ in the equation above, what is the value of a ?

32 6

$$2(5x - 20) - (15 + 8x) = 7$$

What value of x satisfies the equation above?

33 5



Note: Figure not drawn to scale.

On \overline{PS} above, $PQ = RS$. What is the length of \overline{PS} ?