

10.1: (Systems of Linear Equations in Two Variables)

<p>If (a, b) is the solution of the system of equations $\begin{cases} 2\sqrt{2}x + 3\sqrt{5}y = 7 \\ 3\sqrt{2}x - \sqrt{5}y = -17 \end{cases}$, then</p> <p>$ab =$</p> <p>A) $-4\sqrt{5}$ B) $4\sqrt{10}$ C) $-2\sqrt{10}$ D) $2\sqrt{10}$ E) -20</p>	System of linear equations.
<p>If the system of $\begin{cases} x - 3y = 1 \\ 2x + my = m + 8 \end{cases}$ is dependent, then the solution set is given by</p> <p>A) $\{(3t + 1, t), t \text{ is any real number}\}$ B) $\{(t, 3t + 1), t \text{ is any real number}\}$ C) $(-\infty, \infty)$ D) \emptyset E) $\{(t, t + 8), t \text{ is any real number}\}$</p>	System of linear equations.

<p>If system of equations $\begin{cases} \frac{x}{3} - \frac{y}{2} = \frac{3}{2} \\ \frac{2x}{3} + ky = \frac{3}{2} \end{cases}$, is inconsistent, then $k =$</p> <p>A) -1 B) -2 C) 1 D) 2 E) $\frac{1}{2}$</p>	<p>System of linear equations.</p>
<p>The sum of all the possible values of k for which the system $\begin{cases} k^2x + 2x - 6y = 2 \\ kx + 2y = 12 \end{cases}$ is inconsistent, is equal to</p> <p>A) -3 B) 1 C) -1 D) 3 E) -2</p>	<p>System of linear equations.</p>
<p>If (m, n) is the solution of the system $\begin{cases} 3x - y = 0 \\ 5x + 2y = 22 \end{cases}$, then $m + n =$</p> <p>A) 8 B) 4 C) -4 D) 6 E) -2</p>	<p>System of linear equations.</p>

<p>If the system of linear equations $\begin{cases} x - 6y = 2 \\ kx + 3y = 4 \end{cases}$ is inconsistent, then</p> <p>A) $k = -\frac{1}{2}$</p> <p>B) $k = -2$</p> <p>C) $k < -2$</p> <p>D) $k = 2$</p> <p>E) $k > \frac{1}{2}$</p>	<p>System of linear equations.</p>
<p>The set of all values of k for which the system $\begin{cases} 3x + ky = 11 \\ 2x + 4y = 9 \end{cases}$ has a unique solution is</p> <p>A) $\{k \mid k \leq 6\}$</p> <p>B) $\{6\}$</p> <p>C) $\{k \mid k \geq 6\}$</p> <p>D) $\left\{k \mid k \neq \frac{3}{2}\right\}$</p> <p>E) $\{k \mid k \neq 6\}$</p>	<p>System of linear equations.</p>

<p>If (a, b) is the solution of the system of equations $\begin{cases} \frac{2x-1}{3} + \frac{y+2}{4} = 4 \dots (1) \\ \frac{x+3}{2} - \frac{x-y}{3} = 3, \dots (2) \end{cases}$ then</p> <p>$a - b =$</p> <p>A) 1 B) 7 C) 5 D) 3 E) 2</p>	System of linear equations.
<p>If (p, q) is the solution of the system $\begin{cases} \frac{3}{4}x + \frac{1}{2}y = 5 \\ \frac{1}{4}x - \frac{3}{2}y = 1 \end{cases}$, then $p - q =$</p> <p>A) 6 B) $\frac{34}{5}$ C) $-\frac{32}{5}$ D) 8 E) -8</p>	System of linear equations.

<p>Which one of the following ordered pairs is a possible solution of the system of linear equations $\begin{cases} 2x - \frac{1}{2}y = -1 \\ -8x + 2y = 4 \end{cases}$</p> <p>A) $(\frac{y+2}{2}, y)$</p> <p>B) $(\frac{y-2}{4}, y)$</p> <p>C) $(x, 2x - 5)$</p> <p>D) $(x, 3x + 8)$</p> <p>E) $(x, 2x + 5)$</p>	<p>System of linear equations.</p>
<p>If the ordered pair (a, b) is the solution of the system $\begin{cases} \frac{x+6}{5} + \frac{2y-x}{10} = 1 \\ \frac{x+2}{4} + \frac{3y+2}{5} = -3 \end{cases}$, then $a + b =$</p> <p>A) -32</p> <p>B) 32</p> <p>C) -100</p> <p>D) -104</p> <p>E) 100</p>	<p>System of linear equations.</p>

<p>If the lines whose equations are $2x + 3y = 1$, $x = 3y + 5$ and $kx + 3y = 3$ all intersect at the same point. Then the value of k is:</p> <p>A) 3 B) 4 C) 0 D) -2 E) -1</p>	<p>System of linear equations.</p>
<p>If $(2, -1)$ is a solution of the linear system $ax - by = 12$, $bx + ay = -1$, then $a + b =$</p> <p>A) 7 B) 8 C) 4 D) 6 E) 9</p>	<p>System of linear equations.</p>
<p>If the linear system $\begin{cases} -2x + 2y = -1 \\ 3x - ky = 2 - k \end{cases}$ is inconsistent, then $k =$</p> <p>A) 3 B) -3 C) 6 D) -6 E) 4</p>	<p>System of linear equations.</p>

<p>If (a, b) is the solution of the system $\begin{cases} \frac{(x-y)}{2} - \frac{(x+y)}{4} = 1 \\ 2x - 3y = 5 \end{cases}$, then $a + b =$</p> <p>(a) 0 (b) 1 (c) 2 (d) 3 (e) 4</p>	<p>System of linear equations.</p>
<p>If the system $\begin{cases} 4x + 6y = k \\ 6x + 9y = 6 \end{cases}$ is dependent, then $2k + 1 =$</p> <p>(a) 9 (b) 3 (c) 5 (d) 16 (e) 0</p>	<p>System of linear equations.</p>
<p>A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. If each car holds 5 students and each bus hold 45 students, then the number of cars they took is</p> <p>(a) 3 (b) 4 (c) 5 (d) 2 (e) 9</p>	<p>System of linear equations.</p>