1. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-6x + 7 > -3x - 5$$

A. $(-\infty, a)$, where $a \in [0, 6]$

B. $(-\infty, a)$, where $a \in [-5, -3]$

C. $(a, \infty)$, where $a \in [-9, -2]$

D. $(a, \infty)$, where $a \in [1, 11]$

E. None of the above.

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2. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4x + 10 > 10x + 3$$

A. $(-\infty, a)$, where $a \in [0.3, 2.1]$

B. $(-\infty, a)$, where $a \in [-1.7, 0.3]$

C. $(a, \infty)$, where $a \in [-0.02, 0.95]$

D. $(a, \infty)$, where $a \in [-0.93, -0.12]$

E. None of the above.

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3. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-3 + 3x > 5x \text{ or } 6 + 5x < 7x$$

A. $(-\infty, a) \cup (b, \infty)$, where $a \in [-2.5, 4.5]$ and $b \in [3, 5]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-1.5, -0.5]$ and $b \in [3, 4]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-6, -2]$ and $b \in [-6.5, 2.5]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-6, -2]$ and $b \in [1.5, 2.5]$

E. $(-\infty, \infty)$

4. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-3 + 6x \leq \frac{65x - 5}{9} < 4 + 7x$$

A. $(a, b]$, where $a \in [-2, -1]$ and $b \in [16.5, 22.5]$

B. $[a, b)$, where $a \in [-5, -1]$ and $b \in [20.5, 23.5]$

C. $(-\infty, a) \cup [b, \infty)$, where $a \in [-5, 1]$ and $b \in [19.5, 21.5]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-3, 0]$ and $b \in [16.5, 25.5]$

E. None of the above.

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5. Using an interval or intervals, describe all the $x$-values within or including a distance of the given values.

Less than 3 units from the number 6.

A. $(-\infty, -3] \cup [9, \infty)$

B. $[-3, 9]$

C. $(-3, 9)$

D. $(-\infty, -3) \cup (9, \infty)$

E. None of the above

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6. Using an interval or intervals, describe all the $x$-values within or including a distance of the given values.

No more than 2 units from the number $-4$.

A. $(-\infty, -6) \cup (-2, \infty)$

B. $[-6, -2]$

C. $(-6, -2)$

D. $(-\infty, -6] \cup [-2, \infty)$

E. None of the above

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7. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$-4 + 7x > 8x \text{ or } 8 + 4x < 5x$$

A. $(-\infty, a) \cup (b, \infty)$, where $a \in [-10, -7]$ and $b \in [4, 6]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-7, -3]$ and $b \in [8, 13]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-5, -1]$ and $b \in [7, 12]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-9, -5]$ and $b \in [3, 5]$

E. $(-\infty, \infty)$

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8. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{8}{5} - \frac{5}{8}x \leq \frac{-4}{6}x + \frac{3}{2}$$

A. $(-\infty, a]$, where $a \in [2.4, 5.4]$

B. $[a, \infty)$, where $a \in [-4.4, 0.6]$

C. $[a, \infty)$, where $a \in [0.4, 6.4]$

D. $(-\infty, a]$, where $a \in [-5.4, 0.6]$

E. None of the above.

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9. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$4 - 5x < \frac{-25x - 5}{9} \leq 6 - 3x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [0.05, 4.05]$ and $b \in [25.5, 34.5]$

B. $[a, b)$, where $a \in [2.05, 3.05]$ and $b \in [25.5, 33.5]$

C. $(a, b]$, where $a \in [0.05, 6.05]$ and $b \in [29.5, 30.5]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-0.95, 8.05]$ and $b \in [27.5, 32.5]$

E. None of the above.

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10. Solve the linear inequality below. Then, choose the constant and interval combination that describes the solution set.

$$\frac{8}{3} + \frac{6}{8}x < \frac{7}{2}x - \frac{3}{7}$$

A. $(-\infty, a)$, where $a \in [0.13, 2.13]$

B. $(a, \infty)$, where $a \in [0.13, 2.13]$

C. $(-\infty, a)$, where $a \in [-1.13, 0.87]$

D. $(a, \infty)$, where $a \in [-1.13, 0.87]$

E. None of the above.

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