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

$$-9 + 3x > 5x \text{ or } 7 + 7x < 9x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-5.15, -4]$ and $b \in [2.7, 3.9]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.24, -2.41]$ and $b \in [4.2, 5.7]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-3.7, -1.8]$ and $b \in [4.45, 5.54]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-4.7, -4]$ and $b \in [2.64, 4.03]$

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

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

No more than 3 units from the number 4.

A. $(-\infty, 1) \cup (7, \infty)$

B. $(-\infty, 1] \cup [7, \infty)$

C. $[1, 7]$

D. $(1, 7)$

E. None of the above

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

No less than 6 units from the number -10.

A. $(-16, -4)$

B. $(-\infty, -16) \cup (-4, \infty)$

C. $(-\infty, -16] \cup [-4, \infty)$

D. $[-16, -4]$

E. None of the above

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

$$-5 - 3x \leq \frac{-13x - 6}{6} < 8 - 3x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [-8.8, -3.8]$ and $b \in [9.8, 13.8]$

B. $(a, b]$, where $a \in [-7.8, 1.2]$ and $b \in [7.8, 11.8]$

C. $[a, b)$, where $a \in [-6.8, -2.8]$ and $b \in [8.8, 12.8]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-7.8, -3.8]$ and $b \in [9.8, 12.8]$

E. None of the above.

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

$$\frac{-6}{3} - \frac{10}{8}x \leq \frac{-4}{5}x + \frac{5}{6}$$

A. $[a, \infty)$, where $a \in [5.3, 7.3]$

B. $[a, \infty)$, where $a \in [-7.3, -4.3]$

C. $(-\infty, a]$, where $a \in [3.3, 10.3]$

D. $(-\infty, a]$, where $a \in [-9.3, -5.3]$

E. None of the above.

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

$$9 + 4x < \frac{74x + 5}{9} \leq 9 + 8x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [-2, -1]$ and $b \in [-39, -37]$

B. $(-\infty, a] \cup (b, \infty)$, where $a \in [-3, -1]$ and $b \in [-41, -35]$

C. $[a, b)$, where $a \in [-2, 0]$ and $b \in [-39, -33]$

D. $(a, b]$, where $a \in [-2, -1]$ and $b \in [-39, -37]$

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.

$$\frac{9}{3} - \frac{6}{8}x \geq \frac{6}{7}x - \frac{8}{6}$$

A. $(-\infty, a]$, where $a \in [-0.3, 4.7]$

B. $(-\infty, a]$, where $a \in [-3.7, -0.7]$

C. $[a, \infty)$, where $a \in [-0.3, 3.7]$

D. $[a, \infty)$, where $a \in [-2.7, -1.7]$

E. None of the above.

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

$$-8 + 5x > 6x \text{ or } 7 + 3x < 4x$$

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-8.35, -7.78]$ and $b \in [4.9, 7.7]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-7.74, -6.53]$ and $b \in [7.15, 8.15]$

C. $(-\infty, a] \cup [b, \infty)$, where $a \in [-7.42, -6.53]$ and $b \in [7.9, 8.6]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-8.84, -7.14]$ and $b \in [6.55, 7.11]$

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

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

$$6x - 7 < 9x + 5$$

A. (a, ∞), where $a \in [-14, 1]$

B. $(-\infty, a)$, where $a \in [-6, -2]$

C. (a, ∞), where $a \in [4, 7]$

D. $(-\infty, a)$, where $a \in [3, 6]$

E. None of the above.

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

$$-8x + 4 \leq 7x + 5$$

A. $[a, \infty)$, where $a \in [0.06, 0.38]$

B. $(-\infty, a]$, where $a \in [0.03, 0.1]$

C. $(-\infty, a]$, where $a \in [-0.12, -0.05]$

D. $[a, \infty)$, where $a \in [-0.27, 0.03]$

E. None of the above.