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

$$-8x - 3 < 3x + 6$$

A. $(-\infty, a)$, where $a \in [-1.9, 0.2]$

B. (a, ∞), where $a \in [0.5, 1]$

C. $(-\infty, a)$, where $a \in [-0.1, 1.8]$

D. (a, ∞), where $a \in [-1, -0.5]$

E. None of the above.

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

$$\text{No less than 10 units from the number } -9.$$

A. $[-19, 1]$

B. $(-19, 1)$

C. $(-\infty, -19) \cup (1, \infty)$

D. $(-\infty, -19] \cup [1, \infty)$

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.

$$-8 + 9x > 11x \text{ or } -5 + 4x < 7x$$

A. $(-\infty, a) \cup (b, \infty)$, where $a \in [-2.33, 2.67]$ and $b \in [1, 9]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4, -3]$ and $b \in [-3.67, 3.33]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-5, -1]$ and $b \in [-4.67, 0.33]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-1.33, 7.67]$ and $b \in [4, 5]$

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

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

$$-7x + 10 > 7x + 7$$

A. (a, ∞), where $a \in [-0.12, 0.92]$

B. $(-\infty, a)$, where $a \in [-0.01, 0.24]$

C. $(-\infty, a)$, where $a \in [-0.23, -0.09]$

D. (a, ∞), where $a \in [-1.35, 0.19]$

E. None of the above.

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

Less than 4 units from the number -6.

A. $[-10, -2]$

B. $(-10, -2)$

C. $(-\infty, -10] \cup [-2, \infty)$

D. $(-\infty, -10) \cup (-2, \infty)$

E. None of the above

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

$$\frac{3}{9} - \frac{4}{3}x < \frac{4}{4}x - \frac{8}{2}$$

A. $(-\infty, a)$, where $a \in [-1.86, -0.86]$

B. (a, ∞), where $a \in [-2.86, 1.14]$

C. (a, ∞), where $a \in [0.86, 4.86]$

   D. $(-\infty, a)$, where $a \in [0.86, 4.86]$

   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.

$$-6 + 9x \leq \frac{59x + 7}{6} < 3 + 9x$$

   A. $(a, b]$, where $a \in [-11.6, -7.6]$ and $b \in [0.2, 8.2]$

   B. $(-\infty, a) \cup [b, \infty)$, where $a \in [-10.6, -7.6]$ and $b \in [2.2, 3.2]$

   C. $[a, b)$, where $a \in [-9.6, -6.6]$ and $b \in [1.2, 3.2]$

   D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-11.6, -5.6]$ and $b \in [2.2, 4.2]$

   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.

$$9 - 6x \leq \frac{15x - 7}{3} < 6 + 4x$$

   A. $[a, b)$, where $a \in [0.7, 2.3]$ and $b \in [4.33, 10.33]$

   B. $(a, b]$, where $a \in [0.03, 4.03]$ and $b \in [5.33, 16.33]$

   C. $(-\infty, a] \cup (b, \infty)$, where $a \in [0.8, 3.9]$ and $b \in [8.33, 9.33]$

   D. $(-\infty, a) \cup [b, \infty)$, where $a \in [1.03, 5.03]$ and $b \in [8.33, 13.33]$

   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.

$$-7 + 5x > 8x \text{ or } 4 + 8x < 11x$$

   A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-1.5, 1.7]$ and $b \in [1.55, 3.25]$

B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-4.2, -2]$ and $b \in [-0.37, 1.58]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-1.6, -0.8]$ and $b \in [1.68, 2.63]$

D. $(-\infty, a] \cup [b, \infty)$, where $a \in [-2.7, -2.1]$ and $b \in [0.25, 1.64]$

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

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

$$\frac{-7}{5} + \frac{4}{7}x \leq \frac{10}{9}x - \frac{10}{3}$$

A. $(-\infty, a]$, where $a \in [-4.58, -2.58]$

B. $(-\infty, a]$, where $a \in [-0.42, 5.58]$

C. $[a, \infty)$, where $a \in [-0.42, 7.58]$

D. $[a, \infty)$, where $a \in [-6.58, 1.42]$

E. None of the above.