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

$$\frac{8}{2} - \frac{8}{6}x > \frac{-4}{8}x - \frac{7}{5}$$

A. (a, ∞), where $a \in [3, 9]$

B. $(-\infty, a)$, where $a \in [-9, -6]$

C. $(-\infty, a)$, where $a \in [3, 9]$

D. (a, ∞), where $a \in [-10, -5]$

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.

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

A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-4.6, -4.1]$ and $b \in [2, 4]$

B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-3.8, -0.5]$ and $b \in [4, 6]$

C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-4.06, -1.72]$ and $b \in [3.3, 4.7]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-4.82, -3.78]$ and $b \in [1.9, 3.7]$

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

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

$$-8x - 10 \leq 7x - 6$$

A. $[a, \infty)$, where $a \in [-1.03, -0.2]$

B. $(-\infty, a]$, where $a \in [-1.68, 0.13]$

C. $(-\infty, a]$, where $a \in [0.14, 1.06]$

D. $[a, \infty)$, where $a \in [0.06, 0.39]$

E. None of the above.

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

$$-8 + 5x < \frac{26x - 9}{3} \leq 9 + 8x$$

A. $(-\infty, a) \cup [b, \infty)$, where $a \in [1, 7]$ and $b \in [-25, -14]$

B. $[a, b)$, where $a \in [0, 2]$ and $b \in [-19, -16]$

C. $(-\infty, a] \cup (b, \infty)$, where $a \in [0, 2]$ and $b \in [-25, -16]$

D. $(a, b]$, where $a \in [-0.2, 4.2]$ and $b \in [-21, -15]$

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.

No more than 7 units from the number -7.

A. $[-14, 0]$

B. $(-14, 0)$

C. $(-\infty, -14] \cup [0, \infty)$

D. $(-\infty, -14) \cup (0, \infty)$

E. None of the above
