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

   More than 8 units from the number -7.

   A. $[-15, 1]$

   B. $(-15, 1)$

   C. $(-\infty, -15) \cup (1, \infty)$

   D. $(-\infty, -15] \cup [1, \infty)$

   E. None of the above

---

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

   $$-4x + 5 < -3x + 10$$

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

   B. (a, ∞), where $a \in [-14, -4]$

   C. $(-\infty, a)$, where $a \in [4, 7]$

   D. (a, ∞), where $a \in [4, 12]$

   E. None of the above.

---

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

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

   A. $(-\infty, a] \cup [b, \infty)$, where $a \in [-6, -4]$ and $b \in [-5, -3]$

   B. $(-\infty, a) \cup (b, \infty)$, where $a \in [-14, 0]$ and $b \in [-6, 1]$

   C. $(-\infty, a] \cup [b, \infty)$, where $a \in [2, 8]$ and $b \in [3, 6]$

D. $(-\infty, a) \cup (b, \infty)$, where $a \in [0, 5]$ and $b \in [-1, 7]$

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

---

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

$$\frac{6}{4} + \frac{3}{8}x < \frac{10}{3}x - \frac{8}{2}$$

A. (a, ∞), where $a \in [1, 3]$

B. $(-\infty, a)$, where $a \in [-3, 0]$

C. (a, ∞), where $a \in [-3, 1]$

D. $(-\infty, a)$, where $a \in [1, 4]$

E. None of the above.

---

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

$$-9 + 7x < \frac{58x - 4}{8} \leq 3 + 5x$$

A. $(a, b]$, where $a \in [31, 36]$ and $b \in [-3, 0]$

B. $[a, b)$, where $a \in [29, 36]$ and $b \in [-6, 0]$

C. $(-\infty, a) \cup [b, \infty)$, where $a \in [33, 35]$ and $b \in [-4, 0]$

D. $(-\infty, a] \cup (b, \infty)$, where $a \in [31, 37]$ and $b \in [-3, -1]$

E. None of the above.
