

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

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

- A. (a, ∞) , where $a \in [-10, 1]$
- B. $(-\infty, a)$, where $a \in [6, 8]$
- C. $(-\infty, a)$, where $a \in [-8, -1]$
- D. (a, ∞) , where $a \in [6, 8]$
- E. None of the above.

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

$$-8 + 4x > 6x \quad \text{or} \quad -3 + 8x < 11x$$

- A. $(-\infty, a] \cup [b, \infty)$, where $a \in [0, 6]$ and $b \in [2, 5]$
- B. $(-\infty, a] \cup [b, \infty)$, where $a \in [-8, -3]$ and $b \in [-5, 2]$
- C. $(-\infty, a) \cup (b, \infty)$, where $a \in [-9, -1]$ and $b \in [-3, 3]$
- D. $(-\infty, a) \cup (b, \infty)$, where $a \in [-2, 2]$ and $b \in [0, 5]$
- E. $(-\infty, \infty)$

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

$$\frac{9}{2} + \frac{4}{7}x < \frac{5}{4}x - \frac{10}{5}$$

- A. $(-\infty, a)$, where $a \in [-14, -8]$
- B. $(-\infty, a)$, where $a \in [6, 11]$
- C. (a, ∞) , where $a \in [7, 14]$
- D. (a, ∞) , where $a \in [-13, -7]$
- E. None of the above.

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

$$-3 + 8x < \frac{76x + 4}{9} \leq -5 + 7x$$

- A. $[a, b)$, where $a \in [-12, -3]$ and $b \in [-7, 2]$
- B. $(-\infty, a) \cup [b, \infty)$, where $a \in [-12, -6]$ and $b \in [-5, 0]$
- C. $(a, b]$, where $a \in [-9, -6]$ and $b \in [-6, 0]$
- D. $(-\infty, a] \cup (b, \infty)$, where $a \in [-12, -2]$ and $b \in [-10, -3]$
- E. None of the above.

15. 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. $(1, 15)$
 - B. $[1, 15]$
 - C. $(-\infty, 1) \cup (15, \infty)$
 - D. $(-\infty, 1] \cup [15, \infty)$
 - E. None of the above
-