Chapter Practice Test

Graph:

1. \(-6 \leq 2x + 8 \leq 6\)

   \[\text{[A]} \quad \frac{7}{2}, \quad \frac{3}{2}\]
   \[\text{[B]} \quad -6, \quad 1\]
   \[\text{[C]} \quad -\frac{7}{2}, \quad \frac{3}{2}\]
   \[\text{[D]} \quad 2, \quad 1\]

2. \(-3x - 9 > 9\) or \(-2x < -6\)

   \[\text{[A]}\]
   \[\text{[B]}\]
   \[\text{[C]}\]
   \[\text{[D]}\]

3. \(x + 2 < -5\) or \(x \geq 5\)

Graph:

4. \(|2x - 5| = 2\)

   \[\text{[A]} \quad \frac{7}{2}, \quad \frac{3}{2}\]
   \[\text{[B]} \quad -6, \quad 1\]
   \[\text{[C]} \quad -\frac{7}{2}, \quad \frac{3}{2}\]
   \[\text{[D]} \quad 2, \quad 1\]

5. \(|8x + 4| \leq 12\)

   \[\text{[A]}\]
   \[\text{[B]}\]
   \[\text{[C]}\]
   \[\text{[D]}\]

6. \(\frac{y}{x + 1} > 3\)
7. Use the symbol \( \geq \) to write a linear inequality that has \((-3, 3)\) as a solution. Draw a graph to show that \((-3, 3)\) is a solution to your inequality.

8. Graph: \(3x - 5y \leq -15\)

9. Solve the system by graphing.
   \[
   \begin{align*}
   y & \leq x - 6 \\
   2x + y & \leq 0
   \end{align*}
   \]

10. \[
    \begin{align*}
    4x + 3y & \geq 12 \\
    x & \geq y \\
    x & \leq 6
    \end{align*}
    \]

11. Solve: \(4 = | -2 + 6x |\)

12. Use the problem solving strategy Draw a Diagram to solve the following problem. The ideal diameter of the inside opening of a pipe is 3.85 cm. This opening can vary by at most 0.015 cm. Find the maximum and minimum diameters of this inside opening.

13. Solve and graph \(G_x G_{20}\).

14. Graph: \(Y_x + 1Y > 4\)

15. Which inequality has \((1, 6)\) as a solution?
   
   - [A] \(-5x - 3y \geq -21\)
   - [B] none of these
   - [C] \(-x - 5y \leq -29\)
   - [D] \(-3x - y \leq -11\)