

Section 1.4

Linear Inequalities in One Variable

1. Write each inequality using interval notation. Graph the inequality:
(Similar to p.89 #34)

$$-2 < x \leq 4$$

2. Write each inequality using interval notation. Graph the inequality:
(Similar to p.89 #36)

$$x < 3$$

3. Write each interval as an inequality involving x . Graph each inequality:
(Similar to p.89 #42)

$$[5,9)$$

4. Write each interval as an inequality involving x . Graph each inequality:
(Similar to p.89 #44)

$$(-3, \infty)$$

5. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #64)

$$7x - 2 \leq 19$$

6. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #66)

$$-3x - 2 < 13$$

7. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #68)

$$4x + 6 \geq 2x - 10$$

8. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #74)

$$-2(x - 7) + 5x < 8(x + 1) - 5$$

9. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #80)

$$\frac{1}{4}(2x - 3) < \frac{1}{3}(x + 1)$$

10. Solve each linear inequality. Express your solution using set-builder notation and interval notation. Graph the solution set.
(Similar to p.90 #82)

$$\frac{3}{4} - \frac{1}{8}x > -3$$