Section 2.5

Compound Inequalities

1. Use A = {2, 3, 4, 5, 6}, B = {1, 3, 5, 7, 9}, and C = {2, 4, 6, 8} to find each set
(Similar to p.197 #29-33)

$$A \cup C$$

2. Use A = {2, 3, 4, 5, 6}, B = {1, 3, 5, 7, 9}, and C = {2, 4, 6, 8} to find each set
(Similar to p.197 #29-33)

$$A \cap C$$

3. Use the graph of the inequality to find each set.
(Similar to p.197 #29-33)

$$A = \{x \mid x \ge 3\}; B = \{x \mid x < 1\}$$
$$Find \quad (a)A \cap B \quad and \quad (b)A \cup B$$

4. Use the graph of the inequality to find each set.
(Similar to p.197 #29-33)

$$E = \{x \mid x \le 3\}; F = \{x \mid x \ge -1\}$$
$$Find \quad (a)E \cap F \quad and \quad (b)E \cup F$$

5. Solve each compound inequality. Graph the solution set.
(Similar to p.198 #43-65)

$$x - 5 \le 2 \quad and \quad 3x - 2 \ge -8$$

6. Solve each compound inequality. Graph the solution set.
(Similar to p.198 #43-65)

$$-10 < 5x + 5 \le 3$$

7. Solve each compound inequality. Graph the solution set.
(Similar to p.198 #43-65)

$$0 < \frac{5}{3}x - 2 \le 4$$

8. Solve each compound inequality. Graph the solution set.
(Similar to p.198 #43-65)

$$-4 < -7(x-1) < 10$$

9. Solve each compound inequality. Graph the solution set.
(Similar to p.198 #67-79)

$$4x \ge 9x + 10 \quad or \quad x < 3x - 6$$