

3-5**Practice**

Form K

Working With Sets**Write each set in roster form and in set-builder notation.**1. M is the set of integers that are greater than -5 and less than 2 .2. N is the set of real numbers that are factors of 36 .**Write each set in set-builder notation.**

3. $B = \{-3, -2, -1, 0, 1, \dots\}$

4. $M = \{2, 4, 6, 8, 10\}$

$B = \{x / x \text{ is}$

Solve each inequality. Write the solutions of each inequality in set-builder notation.

5. $2y + 5 < 21$

6. $3r + 3 > 633$

7. $12 - 8m \geq 60$

8. $-(3x + 5) \leq -13$

9. $-2(x - 7) > -10 - 6x$

10. $-2(x + 7) \leq -14 + 2x$

3-5**Practice** (continued)

Form K

Working With Sets**List all the subsets of each set.**

11. $\{x, y, z\}$

12. $\{0\}$

13. $\{\text{car, boat, airplane}\}$

14. $\{-2, 2\}$

15. Suppose $U = \{0, 1, 3, 5, 7, 9\}$ is the universal set and $A = \{1, 3, 7\}$. What is A' ?16. Suppose $U = \{-4, -2, 0, 2, 4\}$ is the universal set and $R = \{2, 4\}$. What is R' ?**Suppose $U = \{1, 3, 7, 11, 15\}$, $A = \{1, 3, 7\}$, and $B = \{1, 3, 7, 15\}$. Tell whether each statement is *true* or *false*. Explain your reasoning.**

17. $A \subseteq U$

18. $U \subseteq B$

19. $B \subseteq A$

20. The universal set U and set A are defined below. What are the elements of the complement of A ? Write your answer in roster form and in set-builder notation.

$U = \{\text{all the days in a week}\}$

$A = \{\text{all the days in the weekend}\}$