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5-1B Lesson Master

Questions on SPUR Objectives

See Student Edition pages 367-371 for objectives.

VOCABULARY

- 1. What is the *intersection* of two sets?
- **2.** What is the *union* of two sets?

REPRESENTATIONS) Objective I

In 3-5, write the inequality for the set of numbers that is graphed on the number line.

In 6–9, solve the inequality and graph its solution set on the number line.

6.
$$-3r + 11 < 20$$

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 _____ 7. $4t - (2 - t) \ge 18$ _____

8.
$$-20 + 6w \le 40$$

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 _____ 9. $13 < y + 3(-4y + 8)$ _____

In 10 and 11, write the compound inequality for the set of numbers that is graphed on the number line.



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In 12-21, graph the indicated set of points on the number line.

12.
$$x \le 8$$

13.
$$u > -6$$

14.
$$n < 0$$
 and $n \ge -7$

15.
$$d > -4$$
 or $d < -8$

16.
$$-2 \le s \le 3$$

17.
$$7 \ge y > -3$$



18. *g* is from 1 to 6

←

20.
$$\{p \mid p < 6\} \cap \{p \mid p > -5\}$$

21.
$$\{y \mid y < 6\} \cup \{y \mid y \ge 10\}$$





22. In some hospitals, newborns weighing less than 5 pounds are put on special watch. Graph these weights w on the number line below.

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23. Give the CAS output when each of the sentences is entered, assuming the variable is first cleared. Then graph the solution set on the number line.

a.
$$m \ge -2$$



b.
$$4 \le s \le 10 \text{ and } s \le 6$$



c.
$$v < -3$$
 and $v > 6$

d.
$$n > 3$$
 and $n < 12$