

Name _____

4-9B Lesson Master**Questions on SPUR Objectives**

See pages 245–249 for objectives.

SKILLS Objective E1. Let $y = |x - 4|$. Find all solutions when:

a. $y = 0$

a. _____

b. $y = 2$

b. _____

c. $y = -2$

c. _____

d. $y = 4$

d. _____

2. Let $y = |2x + 1| - 1$. Find all solutions when:

a. $y = 0$

a. _____

b. $y = -4$

b. _____

c. $y = -1$

c. _____

d. $y = 6$

d. _____

3. Let $y = -3|x|$. Find all solutions when:

a. $y = 0$

a. _____

b. $y = -6$

b. _____

c. $y = 6$

c. _____

d. $y = -9$

d. _____

In 4–9, solve and graph the solution on a number line.

4. $|x + 2| - 3 < 5$



5. $5|x - 3| \leq 15$



6. $2|x - 1| + 5 < -2$



7. $|4x + 1| > 7$



8. $\left|\frac{x}{3} - 1\right| \geq 2$



9. $7|x + 2| - 8 < -1$



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REPRESENTATIONS Objective N

10. *Fill in the Blanks.* $|3 - x| = 2.9$ means the distance between _____ and _____ on a number line is _____.

11. Let $|2x - 4| = h$. State a value of h so that the absolute-value equation has the given number of solutions.

a. two solutions

b. one solutions

c. no solutions

In 12-16, graph $y = |x + 2|$ below, and use the graph to solve the sentence.

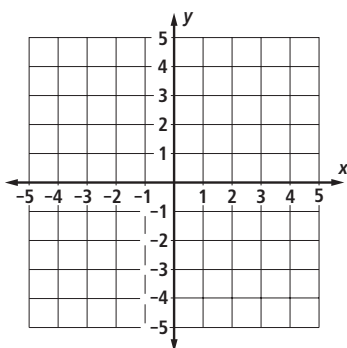
12. $|x + 2| = 2$

13. $|x + 2| < 2$

14. $|x + 2| \geq 2$

15. $|x + 2| = 0$

16. $|x + 2| \geq -2$



In 17-20, graph $y = |2x - 3|$ below, and use the graph to solve the sentence.

17. $|2x - 3| = 1$

18. $|2x - 3| < 1$

19. $|2x - 3| < -1$

20. $|2x - 3| \geq 1$

