NAME _____ DATE _____ PERIOD _____

6-1 Skills Practice

Solving Inequalities by Addition and Subtraction

Match each inequality with its corresponding graph.

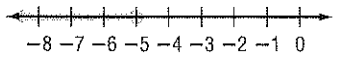
1. $x + 11 > 16$

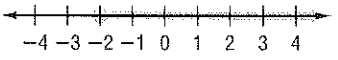
2. $x - 6 < 1$

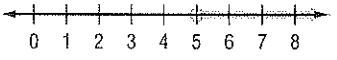
3. $x + 2 \leq -3$

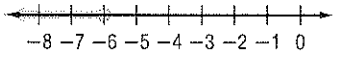
4. $x + 3 \geq 1$

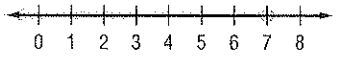
5. $x - 1 < -7$

a.


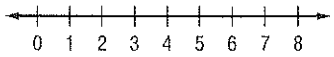
b.


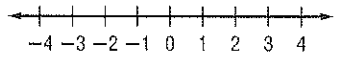
c.


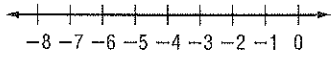
d.


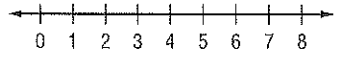
e.


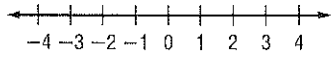
Solve each inequality. Then check your solution, and graph it on a number line.

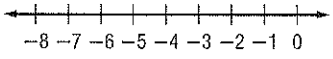
6. $d - 5 \leq 1$


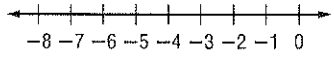
7. $s + 9 < 8$


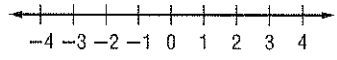
8. $a - 7 > -13$


9. $w - 1 < 4$


10. $4 \geq k + 3$


11. $-9 \leq b - 4$


12. $-2 \geq x + 4$


13. $2y < y + 2$


Define a variable, write an inequality, and solve each problem.

14. A number decreased by 10 is greater than −5.

15. A number increased by 1 is less than 9.

16. Seven more than a number is less than or equal to −18.

17. Twenty less than a number is at least 15.

18. A number plus 2 is at most 1.

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6-2 Skills Practice

Solving Inequalities by Multiplication and Division

Match each inequality with its corresponding statement.

1. $3n < 9$	**a.** Three times a number is at most nine.
2. $\frac{1}{3}n \geq 9$	**b.** One third of a number is no more than nine.
3. $3n \leq 9$	**c.** Negative three times a number is more than nine.
4. $-3n > 9$	**d.** Three times a number is less than nine.
5. $\frac{1}{3}n \leq 9$	**e.** Negative three times a number is at least nine.
6. $-3n \geq 9$	**f.** One third of a number is greater than or equal to nine.

Solve each inequality.

7. $14g > 56$	**8.** $11w \leq 77$	**9.** $20b \geq -120$	**10.** $-8r < 16$
11. $-15p \leq -90$	**12.** $\frac{s}{4} < 9$	**13.** $\frac{a}{9} \geq -15$	**14.** $-\frac{p}{7} > -9$
15. $-\frac{t}{12} \geq 6$	**16.** $5z < -90$	**17.** $-13m > -26$	**18.** $\frac{k}{5} \leq -17$
19. $-y < 36$	**20.** $-16c \geq -224$	**21.** $-\frac{h}{10} \leq 2$	**22.** $12 > \frac{d}{12}$

Define a variable, write an inequality, and solve each problem.

23. Four times a number is greater than -48.

24. One eighth of a number is less than or equal to 3.

25. Negative twelve times a number is no more than 84.

26. Negative one sixth of a number is less than -9.

27. Eight times a number is at least 16.

Lesson 6-2