NAME _____ DATE _____ PERIOD _____

5-3 Skills Practice

Inequalities

Write an inequality for each sentence.

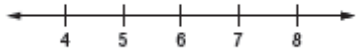
1. More than 100,000 fans attended the opening football game at The Ohio State University.
2. Her earnings at \$16 per hour were no more than \$96.
3. A savings account decreased by \$50 is now less than \$740.
4. A number increased by 7 is at least 45.

For the given value, state whether each inequality is *true* or *false*.

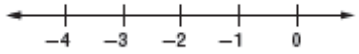
5. $\frac{18}{c} < 9, c = 2$
6. $\frac{x}{5} \geq 3, x = 5$
7. $6k \geq 42, k = 7$
8. $10 - x < 3, x = 7$
9. $11 + n < 32, n = 4$
10. $9 + c > 19, c = 10$

Graph each inequality on a number line.

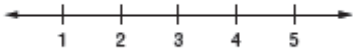
11. $a < 6$



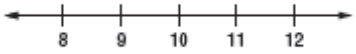
12. $t \geq -2$



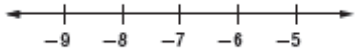
13. $d \leq 3$



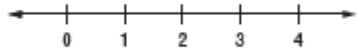
14. $b \geq 10$



15. $x \geq -7$



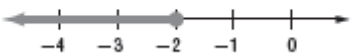
16. $x > 2$



Write the inequality for each graph.

17.

18.



19.

20.

21.

22.

NAME _____ DATE _____ PERIOD _____

5-3 Practice

Inequalities

Write an inequality for each sentence.

1. More than 3400 people attended the flea market.

2. Her earnings at \$11 per hour were no more than \$121.

3. The 10-km race time of 84 minutes was at least twice as long as the winner's time.

4. A savings account increased by \$70 is now more than \$400.

For the given value, state whether each inequality is *true* or *false*.

5. $9 - x > 3, x = 6.5$

6. $9.5 + n < 19, n = 10$

7. $3k < 27\frac{1}{2}, k = 8$

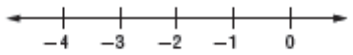
8. $21 \leq 4c, c = 5.2$

9. $\frac{x}{4} \leq 8, x = 32$

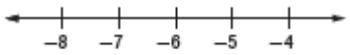
10. $\frac{9}{c} > 2, c = 3\frac{1}{2}$

Graph each inequality on a number line.

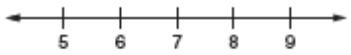
11. $a < -2$



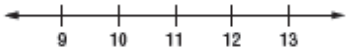
12. $t > -6$



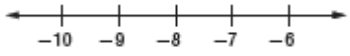
13. $d \geq 7$



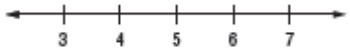
14. $b \geq 11$



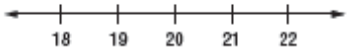
15. $x \leq -8$



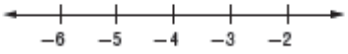
16. $w > 5$



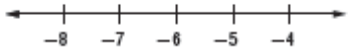
17. $n < 20$



18. $b \leq -4$

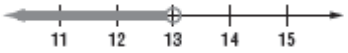


19. $a \geq -6$



Write the inequality for each graph.

20.



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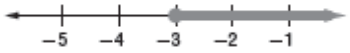

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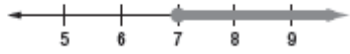

24. **HIPPOS** The average time a human being can hold their breath underwater is 1 minute. A hippo can hold its breath underwater for at least 5 times as long as a human. Write an inequality that represents how long a hippo can hold its breath underwater.

25. **CHARITY** In the first hour of a charity auction, \$4800 was raised. This was at most \$1200 more than was raised in the second hour of the auction. Write an inequality that represents the amount raised in the second hour.