

Worksheet 8-6 - PreAlgebra

Inequalities

Write an inequality for each sentence.

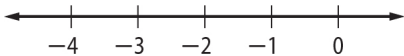
- More than 3400 people attended the flea market.
- Her earnings at \$11 per hour were no more than \$121.
- The 10-km race time of 84 minutes was at least twice as long as the winner's time.
- A savings account increased by \$70 is now more than \$400.

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

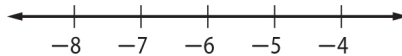
- $9 - x > 3$, $x = 6.5$
- $9.5 + n < 19$, $n = 10$
- $3k < 27\frac{1}{2}$, $k = 8$
- $21 \leq 4c$, $c = 5.2$
- $\frac{x}{4} \leq 8$, $x = 32$
- $\frac{9}{c} > 2$, $c = 3\frac{1}{2}$

Graph each inequality on a number line.

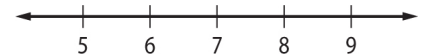
11. $a < -2$



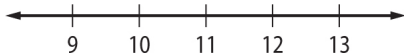
12. $t > -6$



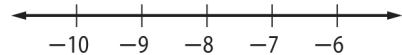
13. $d \geq 7$



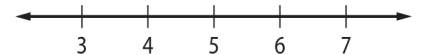
14. $b \geq 11$



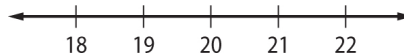
15. $x \leq -8$



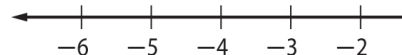
16. $w > 5$



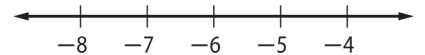
17. $n < 20$



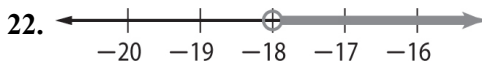
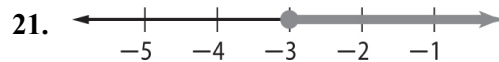
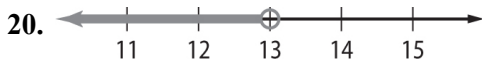
18. $b \leq -4$



19. $a \geq -6$



Write an inequality for each graph.



24. 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. 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.