

**Algebra 1 Chapter 4A Practice Test (Sections 4.1-4.3)**

**Multiple Choice**

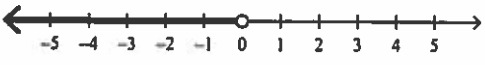



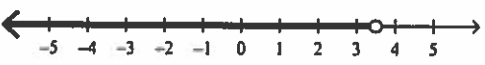
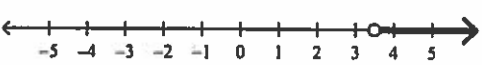
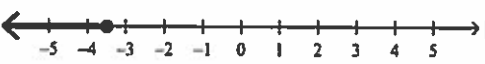
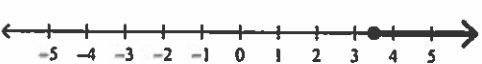
Identify the choice that best completes the statement or answers the question.

Which number is a solution of the inequality?

$4x \geq \frac{21}{4}$   
 $\frac{4x}{4} \geq \frac{21}{4}$   
 $x \geq \frac{21}{4}$

1.  $4x - 14 \geq 7$   
 $+14 \quad +14$   
 $\frac{4x}{4} \geq \frac{21}{4}$   
 a.  $\frac{11}{8}$       **(b)**  $\frac{21}{4} = 5\frac{1}{4}$       c. 3      d.  $\frac{1}{9}$
2.  $\frac{8}{3} \geq \frac{8g}{20}$        $12g$        $g \leq 1$   
 a.  $\frac{20}{3}$       **(b)** 1      c. 3      d. 8

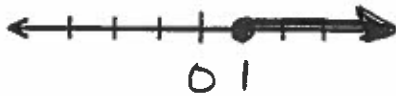
Identify the graph of the inequality from the given description.

3.  $x$  is positive.  
 a.       c.   
 b.       **(d)** 
4.  $x$  is at least 3.5.       $x \geq 3.5$   
 a.       c.   
 b.       **(d)** 

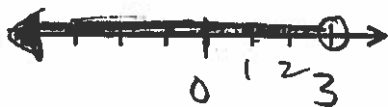
**Short Answer**

Graph the inequality.

5.  $x \geq 1$



6.  $d < 3$



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7.  $x \leq 5$



Solve the inequality.

8.  $\frac{h-5}{15} > -1$   
 $\frac{h-5}{15} > -1$   
 $h-5 > -15$   
 $h > -10$

9.  $\frac{2}{9} \geq s - \frac{2}{3}$   
 $+\frac{2}{3} \quad +\frac{2}{3}$

$$\begin{aligned} \frac{2 \cdot 1}{9 \cdot 1} &= \frac{2}{9} \\ + \frac{2 \cdot 3}{3 \cdot 3} &= \frac{6}{9} \\ \hline \frac{8}{9} & \end{aligned}$$

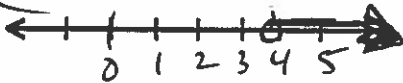
$\frac{8}{9} \geq s$   
or  
 $s \leq \frac{8}{9}$

10.  $-5x - 1 < 28$   
 $+1 \quad +1$   
 $-5x < 29$   
 $\frac{-5x}{-5} < \frac{29}{-5}$   
 $x > -5.8$

Solve the inequality. then graph your solution.

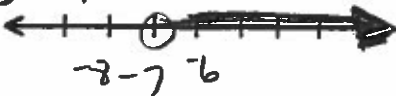
11.  $x - 7 > -3.1$   
 $+7 \quad +7$   
 $x > 3.9$

$x > 3.9$



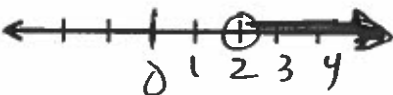
12.  $s + 5 > -2$   
 $\frac{s+5}{5} > \frac{-2}{5}$   
 $s > -7$

$s > -7$



13.  $\frac{-y}{9} < -18$   
 $\frac{-y}{9} < -18$   
 $-y < -162$   
 $y > 162$

$y > 162$



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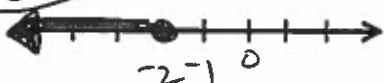
14.  $q - \frac{1}{2} > \frac{1}{3}$   
 $+ \frac{1}{2} \quad + \frac{1}{2}$

$$\begin{array}{r} 1 \cdot 2 \\ 3 \cdot 2 \\ + 1 \cdot 2 \\ \hline 2 \cdot 3 \end{array} \quad \begin{array}{r} 2 \\ 6 \\ 6 \\ \hline 6 \end{array} \quad \text{OR} \quad \frac{5}{6}$$



15.  $j + 7 \leq 5$

~~$j + 7 \leq 5$~~   
 $j \leq -2$



16. Solve for the variable.  $-\frac{x}{6} \leq 1$   
 ~~$(-6)x \leq 1(-6)$~~   
 $x \geq -6$

OR  ~~$(-1)x \leq 1(6)$~~   
 $-x \leq 6$   
 ~~$-1 \quad -1$~~   
 $x \geq -6$

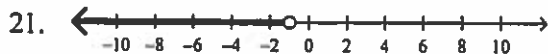
17. Solve for the variable.  $\frac{x}{2} \geq -6$   
 ~~$\frac{x}{2} \geq -6$~~   
 $x \geq -3$

18. Solve for the variable.  $x - 2 \leq -5$   
 ~~$+2 \quad +2$~~   
 $x \leq -3$

19. Solve for the variable.  ~~$\frac{x}{3} \geq -2(3)$~~   
 $x \geq -6$

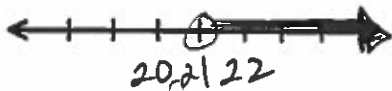
20. Solve for the variable.  $x - 8 \leq -11$   
 ~~$+8 \quad +8$~~   
 $x \leq -3$

Write an inequality for the graph.



$$x < -1$$

22. Solve for the variable and graph your solution.  $\frac{x}{2} > 3$  (?)



$$x > 21$$

23.  $-\frac{1}{7}p \leq 6$

$$\left(\frac{-7}{-7}\right)\left(\frac{-1}{-7}\right)p \leq \frac{6}{-7}\left(\frac{-7}{-1}\right)$$

$$p \geq -42$$

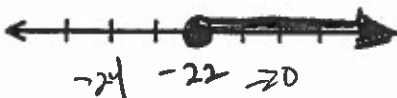


24.  $-\frac{4}{11}d \leq 8$

$$\left(\frac{-11}{4}\right)\left(\frac{-4}{11}\right)d \leq \left(\frac{8}{1}\right)\left(\frac{-11}{4}\right)$$

$$d \geq -22$$

$$-\frac{88}{4}$$



25. Tina can type at least 60 words per minute. Write an inequality to model this situation.

$$T \geq 60$$

Write the inequality in words.

26.  $2n - 8 > 34$

Two times a number minus 8 is greater than 34

or

8 less than twice a number is greater than 34

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Solve the equation.

$$27. \quad -6 \geq \frac{x}{3} + 4$$

$$\begin{array}{r} -4 \\ \hline (3) -10 \geq \frac{x}{3} \end{array} \quad (\times 3)$$

$$-30 \geq x$$

$$-30 \geq x$$

or

$$x \leq -30$$

$$28. \quad 2 \leq \frac{10+z}{5} \quad (\times 5)$$

$$\begin{array}{r} -10 \\ \hline -10 \leq 10+z \end{array}$$

$$-20 \leq z$$

$$-20 \leq z$$

$$z \geq -20$$

$$29. \quad 3(y+6) > 30$$

$$\begin{array}{r} 3y+18 > 30 \\ -18 \quad -18 \\ \hline \end{array}$$

$$\frac{3y}{3} > \frac{12}{3}$$

$$y > 4$$

$$30. \quad 4.9x + 4.4 < 19.1$$

$$\begin{array}{r} -4.4 \quad -4.4 \\ \hline \end{array}$$

$$\begin{array}{r} 4.9x < 14.7 \\ \hline 4.9 \quad 4.9 \end{array}$$

$$x < 3$$