

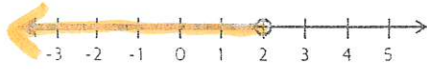
Name: _____

Chapter 4 Practice Test

Answers Version (Practice)

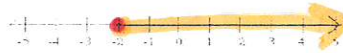
Write an inequality for the graph. Choose your own variable.

1.)



$$x < 2$$

2.)



$$x \geq -2$$

Write the word sentence as an inequality. DO NOT SOLVE!!!

3.) The sum of a number d and 4 is at most 5.

$$d + 4 \leq 5$$

4.) The quotient of a number p and 7 is less than -3.

$$\frac{p}{7} < -3$$

5.) The product of -2 and a number k is greater than 30.

$$-2k > 30$$

6.) $\frac{1}{4}$ of a number y is at least 20.

$$\frac{y}{4} \geq 20$$

Tell whether the given value is a solution of the inequality. SHOW YOUR WORK

7.) $m + 3 < 4$ $m = -5$

$$\begin{aligned} \cancel{m + 3} &< \cancel{4} \\ -5 + 3 &< 4 \\ -2 &< 4 \end{aligned}$$

8.) $\frac{x}{4} \leq 6$ $x = 26$

$$\begin{aligned} \cancel{x} &\leq \cancel{24} \text{ NO} \\ \frac{26}{4} &\leq 6 \\ 6\frac{1}{2} &\leq 6 \end{aligned}$$

Solve the inequality and graph your solution.

9.) $6 > 3(y + 5)$

$$\begin{aligned} 6 &> 3y + 15 \\ 6 - 15 &> 3y + 15 - 15 \\ -9 &> 3y \\ -3 &> y \end{aligned}$$

10.) $-14 < k + 6$

$$\begin{aligned} -14 &< k + 6 \\ -14 - 6 &< k + 6 - 6 \\ -20 &< k \\ k &> -20 \end{aligned}$$

11.) $\frac{31}{6} > p + \frac{4}{3}$

$$\begin{aligned} \frac{31}{6} &> p + \frac{4}{3} \\ -\frac{4}{3} & \\ \hline -\frac{1}{6} &> p \end{aligned}$$

12.) $4.58 + y \leq 2.5$

$$\begin{aligned} -4.58 & \\ +2.5 & \\ \hline -2.08 & \end{aligned}$$

$$y \leq -2.08$$

1. $x < 2$

2. $x \geq -2$

3. $d + 4 \leq 5$

4. $\frac{p}{7} < -3$

5. $-2k > 30$

6. $\frac{y}{4} \geq 20$

7. yes

8. no

9. $-3 > y$

10. $k > -8$

11. $-\frac{1}{6} > p$

12. $y \leq -2.08$

13.) $\frac{n}{1.6} > 7(1.6)$
 $n > 11.2$

14.) $\frac{3}{2}c < -\frac{2}{3}c$
 $-12 > c$

13. $n > 11.2$

14. $-12 > c$
 $c < -12$

15.) $11 \leq -5x - 2$
 $13 \leq -5x$
 $-2.6 \geq x$
 $x \leq -2.6$
 FLIP!
 $-2.6 \geq x$
 or
 $x \leq -2.6$

16.) $-5w + 6 \geq -9$
 $-5w \geq -15$
 $w \leq 3$
 FLIP!

15. $x \leq -2.6$

16. $w \leq 3$

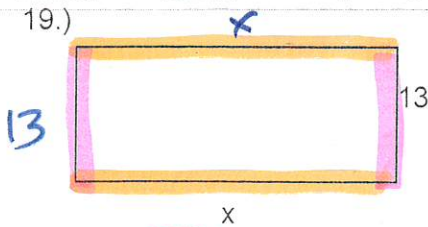
17. $y < 3$

18. $k < -16$

17.) $6y - 7 < 11$
 $6y < 18$
 $y < 3$

18.) $\frac{3}{4}k + 8 < -4$
 $\frac{3}{4}k < -12$
 $k < -16$
 Things to flip the re-FLIP!

Write and solve an inequality that represents the values of x.



perimeter: sum of all sides
 area: length • width

19.a. $2(x+13) \geq 46$
 $x \geq 3$

a.) The perimeter is no less than 46cm.

b.) The area is a maximum of 39cm²

$x+x+13+13$
 $2x+26 \geq 46$
 $2x \geq 20$
 $x \geq 10$
 opps!
 46 or more

$13x \leq 39$
 $x \leq 3$

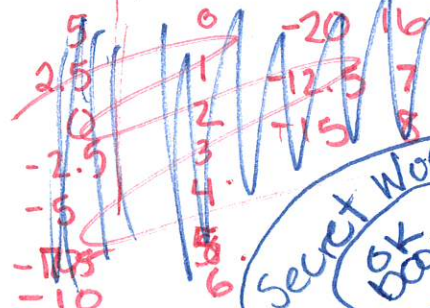
b. $13x \leq 39$

$x \leq 3$ cm

20.) It is currently 5° outside. The temperature is dropping 2.5° every hour. Write and solve an inequality that represents the number of hours that must pass for the temperature to drop below -20°.

$5 - 2.5y < -20$
 $-2.5y < -25$
 $y > 10$ hrs

-2.5 per hour



20. $y > 10$ hrs

$5 - 2.5y < -20$

Bonus Phrase
 Goes on Front of Name Test
 Secret Word: phrase: ok boomer! Put @ Top by name