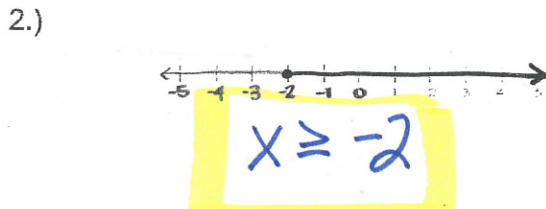
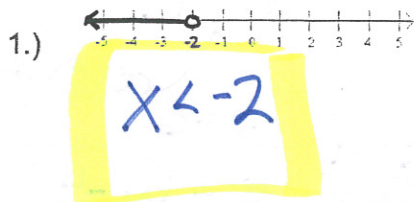


Chapter 4 Practice Test

Name: Key

Write an inequality for the graph. Choose your own variable



Write the word sentence as an inequality. ~~Reverse~~ SOLVE!

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

$\frac{x}{4} \leq 5$ ~~$\frac{x}{4} \leq 5$~~ $x \leq 20$

4.) A number divided by 7 is less than -3

$\frac{x}{7} < -3$ ~~$\frac{x}{7} < -3$~~ $x < -21$

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

$-2x > 30$ ~~$-2x > 30$~~ $x < -15$ reverse

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

The quotient of a number and 4 is @ least 20.
 $\frac{x}{4} \geq 20$ ~~$\frac{x}{4} \geq 20$~~ $x \geq 80$

Tell whether the given value is a solution of the inequality.

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

$-5 + 3 < 4$ yes!
 $-2 < 4$

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

$\frac{26}{4} \leq 6$
 $6\frac{1}{2} \leq 6$ NO!

$4 \overline{) 26} = 6\frac{1}{2}$
 $\frac{24}{2}$

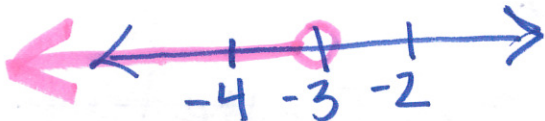
Solve the inequality and graph your solution.

7.) $6 > 3(y + 5)$ ① distribute the 3

$6 > 3y + 3 \cdot 5$

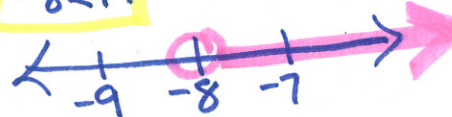
$6 > 3y + 15$ ② subtract 15

$-9 > 3y$ ③ \div by 3
 $-3 > y$



8.) $-14 < k - 6$ ① Add 6

$-8 < k$ ② Graph



$9 + 10$ on separate paper.

9. $\frac{1}{2} > p + \frac{2}{3}$ ① $-\frac{2}{3}$ ② Graph

$\frac{1}{2} = \frac{3}{6}$
 $\frac{2}{3} = \frac{4}{6}$
 $\frac{1}{6} > p$

11.) $\frac{n}{1.6} > 5$

$\frac{n}{1.6} > 5$ (1.6)

$n > 8$

$\frac{1.6}{1.6} \times \frac{n}{1.6} > \frac{5}{1.6} \times 1.6$
 $\frac{1.6}{1.6} n > \frac{8.0}{1.6}$
 $n > 8.0$

13.) $11 \leq -5x$ ① Add 2 ② \div by -5

$\frac{11}{-5} \leq \frac{-5x}{-5}$

$-2\frac{3}{5} \geq x$ reverse

15.) $6y - 2 < 5$ ① Add 2 ② Divide by 5

$\frac{6y}{6} < \frac{7}{6}$

$y < \frac{1}{6}$

10) $4.58 + y \leq 2.5$ ① -4.58

$y \leq -2.08$

$-2.09 -2.08 -2.07$

12.) $8 < -\frac{2}{5}c$ ① \times by the reciprocal ② \div by $-\frac{2}{5}$

$20 > c$ reverse

14.) $-4w + 6 \geq 9$ ① -6 ② \div by -4

$-4w \geq 3$

$w \leq -\frac{3}{4}$ reverse

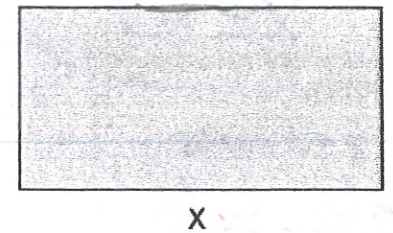
16.) $\frac{3}{4}k + 8 < -4$ ① -8 ② \times by Reciprocal

$\frac{3}{4}k < -12$

$k < -16$

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

17.) The area is no more than 46 feet



$13x \leq 46$

$x \leq 3\frac{7}{13}$

$13 \overline{)46}$
 $\underline{39}$
 7

18.) You planned to study at least 1.5 hours for this test. Write an inequality that represents this solution.

x is time studied

$x \geq 1.5$

$1.4 \quad 1.5 \quad 1.6$

19.) It is currently 0 degrees outside. The temperature is dropping 2.5 degrees every hour. Write and solve an inequality that represents the number of hours that must pass for the temperature to drop below -20 degrees.

h is # of hours

$-2.5h < -20$

$h > 8 \text{ hrs.}$

$2.5 \overline{)200}$
 $\underline{200}$
 80
 200

It will take more than 8 hrs for the temp. to drop below (-20)