

Pre-Quiz: Sections 5-1 to 5-3 (Alg1)

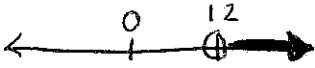
Name: Key

Directions: Answer the following as if this was your quiz for tomorrow. Show all work and circle final answers.

Solve each inequality. Then, graph it on a number line.

1) $x - 8 > 4$

$x > 12$



2) $m + 2 > 6$

$m > 4$



3) $p - 4 < -7$

$p < -3$



4) $12 < t - 9$

$21 < t$



5) Lupe's allowance for the month is \$60. She wants to go to a concert for which a ticket costs \$45.

a) Write and solve an inequality that shows how much money she can spend that month after buying a concert ticket.

$m + 45 \leq 60$

$m \leq 15$

b) She spends \$9.99 on music downloads and \$2 on lunch in the cafeteria. Write and solve an inequality that shows how much she can spend after these purchases and the concert ticket.

$m + 45 + 9.99 + 2 \leq 60$

$m \leq 3.01$

Define a variable, write an inequality, and solve each problem.

6) The sum of a number and -2 is no more than 6.

$n = \text{the number}$

$n + -2 \leq 6$

$n \leq 8$

7) A number decreased by 4 is more than -1

$n = \text{the number}$

$n - 4 > -1$

$n > 3$

8) Twice a number increased by 3 is less than the number decreased by 4.

$n = \text{the number}$

$2x + 3 < x - 4$

$x < -7$

Solve each inequality, and graph your solution on a number line.

9) $\frac{1}{3}y > 5$

$y > 15$

10) $4 < c/5$

$20 < c$
or
 $c > 20$

11) $-8x > 24$

$x < -3$

12) $2m < -10$

$m < -5$

13) $-9a > 45$

$a < -5$

11) $w/6 > -3$

$w > -18$

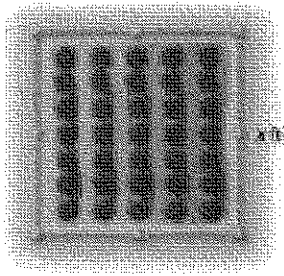
12) $k/7 < -2$

$k < -14$

13) $x/2 = \frac{1}{4}$

$x = \frac{1}{2}$

14) Bill is building a fence around a square garden to keep deer out. He has 60 feet of fencing. Find the maximum length of a side of the garden.



$$4x \leq 60$$

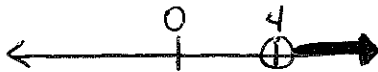
$$x \leq 15$$

At most 15ft per side

Solve each inequality. Graph your solution on a number line.

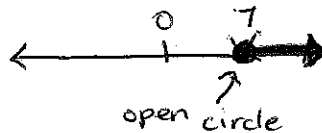
15) $4a - 2 > 14$

$$a > 4$$



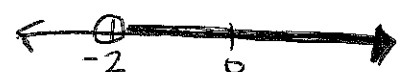
16) $2x + 11 < 5x - 10$

$$x > 7$$



17) $-2(4b + 1) < -3b + 8$

$$b > -2$$



Define a variable, write an inequality, and solve each problem.

18) Three times a number increased by 8 is no more than the number decreased by 4.

$x =$ the number

$$3x + 8 \leq x - 4$$

$$x \leq -6$$

19) Two thirds of a number plus 5 is greater than 17.

$x =$ the number

$$\frac{2}{3}x + 5 > 17$$

$$x > 18$$

20) **MULTIPLE CHOICE:** Shoe rental costs \$2, and each game bowled costs \$3. How many games can Kyle bowl without spending more than \$15?

a) 2

b) 3

c) 4

d) 5

$$2 + 3x \leq 15$$

$$3x \leq 13$$

$$x \leq 4.\bar{6}$$

(round down)