

Chapter 1 practice test1-4 Solve and graph the following inequalities and equations

1)  $|2x+5|=7$

2)  $|6x + 4| - 2 = 26$

3)  $4x - 1 > 19$

4)  $8 \leq 4x - 4 < 20$

5) Give the opposite of 75 \_\_\_\_\_6) Give the reciprocal of 75 \_\_\_\_\_Matching – choose the best answer – put the letter in the blank (#7-10)Choices:7)  $\{\dots-2, -1, 0, 1, 2, 3\dots\}$ 

7) \_\_\_\_\_

a) Whole Numbers

8) Examples:  $-\frac{1}{3}$ , 220, 0.4, -3

8) \_\_\_\_\_

b) Integers

9)  $\{0, 1, 2, 3, 4\dots\}$ 

9) \_\_\_\_\_

c) Irrational Numbers

10) Examples:  $\sqrt{5}$ , -5, 0,  $\pi$ , -0.5

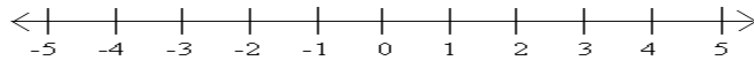
10) \_\_\_\_\_

d) Real Numbers

e) Rational Numbers

11) Evaluate if  $x = -2$  and  $y = 8$ :  $\frac{6 - (10 + y) \cdot 3 \div (-x)}{x^4}$ 12) Simplify:  $3(48x - 36y) + 10y$ 13) Solve:  $|2x - 4| = 20$

14) Graph the following numbers on the given number line:  $\sqrt{11}$ ,  $-\pi$ ,  $1.8$ ,  $\frac{3}{7}$ ,  $-2.4$



15) If you are driving 40 miles per hour, what is your speed in feet per second?

16) A car salesman earns a \$28,000 yearly salary plus 5 % commission on all car sales. How much money in cars must he sell to earn \$55,000 for the year?

17) If a plane travels at a speed of 520 miles per hour from New York to San Francisco and the flight is 3380 miles, how long does the flight take?

18) Which of the following is a solution of the equation  $\frac{x}{4} - 12 = 4$

a) -64

b) -32

c) 32

d) 64

19) Solve and *Graph* the following equation  $|2x+9| = 17$

20) Solve and Graph the following equation  $|2x+5|=3x$

21) Graph the following on a number line:

a)  $x > 4$  and  $x < 7$

b)  $x \geq 9$  or  $x < 3$

22) The circumference of a circle is 20 feet. Use this information to decipher what the radius of the circle is.