

## CHAPTER 1 REVIEW

Name: \_\_\_\_\_

Directions: Evaluate each expression.

1)  $3^5$

2)  $50 - [7 + (3^2 + 2)]$

3)  $15x - 8$  when  $x=2$

4)  $2(x - 1)^2$  when  $x = 4$

Directions: Write an expression for the verbal situation.

5) 3 times the square of a number  $x$ .

6) The product of a number  $z$  and 12 is 60

Directions: Solve using mental math.

7)  $9 - h = 3$

8)  $5v = 25$

Directions: Check to see if the given number is a solution.

9)  $3x - 5 = 5$ ; 3

10)  $\frac{b}{6} + 2 < 10$ ; 24

11)  $2 + \frac{x}{3} \leq -1$ ; 15

Directions: Simplify the expression.

11)  $|-6-3|+|-1+2|$

12)  $11-\sqrt{2(4)+1}$

15)  $\frac{2[(3-7)+1]}{7+2}$

16)  $8-5(3+1)$

Directions: Evaluate the expression.

17)  $\frac{3n+6}{n^3}$  when  $n=2$

18)  $\frac{15}{16}x$  when  $x=\frac{8}{25}$

19)  $3x-4y$  when  $x=2$  and  $y=-3$

Directions: Translate the verbal phrase into an algebraic expression, equation, or inequality.

20) **4 less than the quantity 6 times a number  $n$**

21) **3 times the sum of 7 and a number  $y$**

22) **The difference of 22 and the square of a number  $m$**

23) **The quotient of 5 and  $x$  cubed is 17.**

Directions: Translate the verbal phrase into an algebraic expression, equation, or inequality.

24) 6 fewer than x is at least 21.

25) 4 is greater than or equal to x decreased by 2.

26) Mark scored x points in a game. Her friend Anna scored 5 points less than her. Write an expression to describe Anna's score?

27) Amount you spend if you buy x number of hats shirts at \$20 each. Write an expression for this situation.

28) Complete the exercise below.

| Number        | Circle the number sets in which the number lies. |         |          |            |
|---------------|--|---------|----------|------------|
| $\sqrt{3}$    | Whole  | Integer | Rational | Irrational |
| 0             | Whole  | Integer | Rational | Irrational |
| -15           | Whole  | Integer | Rational | Irrational |
| $\frac{4}{7}$ | Whole  | Integer | Rational | Irrational |
| $-\sqrt{9}$   | Whole  | Integer | Rational | Irrational |
| $ -7 $        | Whole  | Integer | Rational | Irrational |

29) **MULTIPLE CHOICE:** Which of the following is an irrational number?

- A. 4.735
- B. 1.6714273....
- C. 0.9191919191....
- D.  $73.1\overline{324}$