

Name \_\_\_\_\_

Period \_\_\_\_\_

Date \_\_\_\_\_

**Math Lab Test Review - Unit 4**

1. What is the coefficient of each of the following terms?

A.  $5x$

B.  $6y$

C.  $x$

D.  $-x$

5

6

1

-1

2. Simplify the expression  $3.6 + 2.4y - 1.2y + 2.1$

$1.2y + 5.7$

3. Which of the following expressions is not like the other?

A. The difference of 5 and  $x$   $5 - x$

B. From 5, subtract  $x$ .  $5 - x$

C. Five less than  $x$ .  $x - 5$

D. Five decreased by  $x$ .  $5 - x$

4. State the property on the blank lines that describes that specific step.

**Expression:  $8(10z - 20 + 4z)$**

Step 1:  $8(10z + 4z - 20)$  commutative

Step 2:  $8(14z - 20)$

Step 3:  $112z - 160$  distributive

5. Write a simplified expression when  $4x - 1$  is subtracted from  $2x + 5$

$(2x + 5) - (4x - 1)$   
 $2x + 5 - 4x + 1$   
 $-2x + 6$

6. John bought ketchup for \$2.50, 4 packages of french fries for  $x$  dollars each and 3 packages of potato chips for  $y$  dollars each. Write an algebraic expression that shows the total amount John spent.

$2.50 + 4x + 3y$

7. How many terms are in each expression?

A.  $8xy$

B.  $7 + x + y$

C.  $8xy + x - y$

D.  $8x + y$

1

3

3

2

8. In  $-8x - 10$ ...

A. What is the coefficient?

B. What is the variable?

C. What is the constant?

-8

x

-10

9. The cost of tickets at the school play are different for adults and students. For adults,  $a$ , each ticket is \$8.00. For children,  $c$ , each ticket is \$7.00. Write an expression that represents the amount of money collected for ticket sales for both adults and children.

$8a + 7c$

10. Simplify  $\frac{1}{3}(9 - 12x + 18)$ ?

$3 - 4x + 6$

$-4x + 9$

11. Simplify  $2 - (x + 9)$ ?

$$2 - 1x - 9$$
$$\boxed{-1x - 7}$$

12. Translate each sentence

- A. The difference of a number  $x$  and five.  $x - 5$   
B. The product of a number  $x$  and five.  $5x$   
C. Twice the difference of a number  $x$  and five.  $2(x - 5)$   
D. The quotient of a number  $x$  and five.  $\frac{x}{5}$   
E. Two times a number  $x$  decreased by five.  $2x - 5$   
F. The sum of a number  $x$  and five.  $x + 5$

13. What are like terms?

terms with same variable and same exponent

14. Are  $5x$  and  $8x^2$  like terms? Explain.

Yes - same variable & exponent

15. Simplify  $8x + 2y + 3x - 5y$

$$\boxed{11x - 3y}$$

16. Simplify  $5(x - 3)$

$$\boxed{5x - 15}$$

17. Simplify  $\frac{2}{3}a - 1 + 6a$

$$\boxed{6\frac{2}{3}a - 1}$$

18.  $5 - 2(x - 3)$

$$5 - 2x + 6$$
$$\boxed{-2x + 11}$$

19.  $8(x + 2) + 4(x - 1)$

$$8x + 16 + 4x - 4$$
$$\boxed{12x + 12}$$

20.  $\frac{1}{2}(8w - 4) - 2w + 5$

$$4w - 2 - 2w + 5$$
$$\boxed{2w + 3}$$

21. Express the area and perimeter of the rectangle as a simplified expression.

8 units



$2x - 1$  units

$$P: 8 + 8 + 2x - 1 + 2x - 1$$
$$\boxed{4x + 14}$$

$$A: 8(2x - 1)$$
$$\boxed{16x - 8}$$