

**Math Lab Test Review - Unit 4**

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

A.  $5x$

B.  $6y$

C.  $x$

D.  $-x$

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

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

A. The difference of 5 and  $x$ B. From 5, subtract  $x$ .C. Five less than  $x$ .D. Five decreased by  $x$ .

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

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

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

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

Step 3:  $112z - 160$  \_\_\_\_\_

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

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.

7. How many terms are in each expression?

A.  $8xy$

B.  $7 + x + y$

C.  $8xy + x - y$

D.  $8x + y$

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

A. What is the coefficient?

B. What is the variable?

C. What is the constant?

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.

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

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

12. Translate each sentence

- A. The difference of a number  $x$  and five.
- B. The product of a number  $x$  and five.
- C. Twice the difference of a number  $x$  and five.
- D. The quotient of a number  $x$  and five.
- E. Two times a number  $x$  decreased by five.
- F. The sum of a number  $x$  and five.

13. What are like terms?

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

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

16. Simplify  $5(x - 3)$

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

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

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

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

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

