

Expressions and Equations Test **Study Guide**

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_  
Score: 150

Write the correct expression/equation for each sentence (1 point each)

1. Carol made 7 times as much as Marta made \_\_\_\_\_
2. The amount of money Kyle had minus \$85 \_\_\_\_\_
3. The sum of Liz's cookies and Sam's cookies is 9 cookies \_\_\_\_\_
4. The quotient of 36 hotdogs and a certain number of buns is 3 \_\_\_\_\_
5. The difference of 12 black cars and total red cars in the parking lot is 4 \_\_\_\_\_

Simplify the following expressions (2 points each)

6.  $3(10X + 4) - X$
7.  $Y - 4Y + 4X^3 + 2X^3$
8.  $9(7XY - 3) + 4XY - 2$
9.  $4XY^2 + 8 + 2XY^2 + 9Y$
10.  $10 - 24X + 12X + 3$

Solve each equation. MUST show your work!!! ( 2 points each)

\*Highly recommend checking your answers

11.  $-8X=84$

12.  $\frac{R}{4} = -36$

13.  $X-12=84$

14.  $5X-6=64$

15.  $3C-9=12$

16.  $9+4W=1$

17.  $\frac{M}{8} + 10 = 12$

18.  $-3K + 9 = 24$

Evaluate each algebraic expression for  $x = -4$  ( 2 points each)

19.  $9X-4$

20.  $3X+2$

Solve each inequality AND graph the inequality. Show ALL work!

(3 points each; 2 for solving and 1 for the correct graph)

21.  $7X > 49$



22.  $X + -8 \geq 24$



23.  $\frac{x}{-2} \geq 9$



24.  $10 + 3X < 19$



25.  $-2X + 5 \geq 11$

