**Unit 3: Expressions Post-Test Review ~ Math 6/7**

1. Identify each part of the expression. Write “N/A” if the part is not in this expression: 9(3x² + 4)

a. coefficient: \_\_\_\_\_\_\_\_\_\_\_ b. constant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ c. variable: \_\_\_\_\_\_\_\_\_\_\_\_\_

d. exponent: \_\_\_\_\_\_\_\_\_\_\_ e. quotient: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ f. product: \_\_\_\_\_\_\_\_\_\_\_\_\_

g. factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ h. sum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g. difference:\_\_\_\_\_\_\_\_\_\_\_\_

1. What does it mean when a number is “squared” or “cubed?” Give an example of each.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Evaluate the expression. Show EACH step: 10² - (14 – 2 + 7) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Write using exponents AND solve: 5 • 5 • 5 • 5 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. If m = 5, evaluate the expression: 4m² + 6m \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Apply the distributive property to write an equivalent expression to 9(y – 3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Combine like terms to simplify this expression: 8x³ + 4x² + 12x³ - x² \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. The cost of renting a moving truck is $39.99 plus an additional $0.50 for each mile driven. Write an expression to represent the cost of renting the truck for *m* miles. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Give an example of:

a. commutative property:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. distributive property:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. associative property:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. The expression *lwh* is used to find volume of a rectangular prism. Solve for the volume if l = 14, w = 2.5, and h = 6.2.
2. Use the expression s3 to find the volume of a cube in which s =  inch. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Factor the expression 8z + 480. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The expression 100 + 5*n* can be used to find the total price for a field trip to the science museum, where n = the number of students. Determine the cost for 250 students to visit the science museum.

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1. Sydney ordered 3 “Number 1” combos, each with 1 burger, 1 order of fries, and 1 Coke. Parker ordered a “Number 1” combo, along with an extra Coke. Mrs. Bothers ordered 2 “Number 1” combos, but she upgraded the Cokes to milkshakes. Write an expression for their combined orders, if b = burgers, f = fries, c = Cokes, and m = milkshakes.

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1. Write the following statement as an expression: six less than the product of 4 and x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Angel and 2 friends order a large pizza for $19.99, an order of wings for $7.59, and *n* medium drinks for $1.50 each. If they split these costs evenly, write an expression can be used to find the amount each girl should pay.

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1. Helen bought *b* blouses that were originally priced at $24.50 each. Each blouse was on sale for $6.50 off the original price when she bought them. Which expression can be used to find the total sale price of *b* blouses?

A. 24.50(b – 6.50) B. b(24.50 – 6.50) C. 24.50b – 6.50 D. 24.50 – 6.50 - b

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1. In the expression 5*x,* the 5 can be defined as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

19.A family of four (2 adults and 2 kids) is going to the pumpkin patch. Regular admission is $10.75 for adults and $8 for kids. They also have a coupon for 25% off kids’ admission. How much will they pay to get in?

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