Math 6 - Unit 3: Expressions
End of Unit Study Guide

Name: _____

Class Period: 1 2 3 4 Date: _____

1) What is the name of a number that multiplies a variable, such as the "9" in the term "9x"?

2) Evaluate: $(6^2 - 8 \div 4) + 27$

3) Write in exponential form: $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 =$

4) Evaluate $n^2 + 4n + 4$ if $n = 7$

5) Write an expression that represents "12 more than a number?"

6) Simplify this expression by combining like terms: $7n + 15n^2 + 13n - 14n^2$

7) The cost of attending a state fair is $3.25 for admission, plus an additional $0.25 for each ride ticket purchased. Write an expression to represent the cost of attending the fair and purchasing *t* tickets.

8) Which expression is NOT equivalent to the others? (Hint: Look closely at the operations.)

A) $7(6 + 9)$ B) $42 + 63$ C) $7 \cdot 15$ D) $7(6) \cdot 7(9)$

9) Apply the distributive property to rewrite the expression: $12(5x + 3)$

10) Evaluate to find the volume of a cube with side length s = $\frac{1}{3}$; V= s^3

11) Evaluate "4 squared."

12) The expression **120 + 15*n*** can be used to find the total price for ***n* students** to take a field trip to the science museum. Determine the cost if n = **3 students** to visit the science museum.

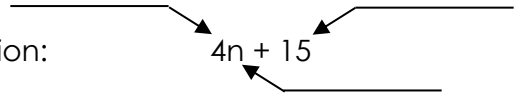
13) Factor to write an expression that is equivalent to **30x + 5**.

14) Translate into an algebraic expression: **nine less than the difference of seven squared and six**.

15) Neveah and 4 of her friends order a large pizza for $8 and *n* medium drinks for $3 each. If they split these costs evenly, which expression can be used to find the amount each girl should pay?

16) Write an example of the **commutative property**?

17) Label the parts of the expression: 4n + 15



18) A family of four (2 adults and 2 kids) is going to the pumpkin patch. Regular admission is $12 for adults and $4 for kids. How much will they pay to get in?

19) Simplify the expression 7(n + 3) + 12n

20) What are like terms?

Math 6 - Unit 3: Expressions Name: _____

End of Unit Study Guide

ANSWER KEY Class Period: 1 2 3 4 Date: _____

1) What is the name of a number that multiplies a variable, such as the "9" in the term "9x"?
coefficient

2) Evaluate: $(6^2 - 8 \div 4) + 27$ **34**

3) Write in exponential form: $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 =$ **7^5**

4) Evaluate $n^2 + 4n + 4$ if $n = 7$ **81**

5) Write an expression that represents "12 more than a number?" **n+12**

6) Simplify this expression by combining like terms: $7n + 15n^2 + 13n - 14n^2$ **$n^2 + 20n$**

7) The cost of attending a state fair is $3.25 for admission, plus an additional $0.25 for each ride ticket purchased. Write an expression to represent the cost of attending the fair and purchasing *t* tickets. **3.25 + 0.25t**

8) Which expression is NOT equivalent to the others? (Hint: Look closely at the operations.) **D**

A) $7(6 + 9)$ B) $42 + 63$ C) $7 \cdot 15$ D) $7(6) \cdot 7(9)$

9) Apply the distributive property to rewrite the expression: $12(5x + 3)$ **60x + 36**

10) Evaluate to find the volume of a cube with side length $s = \frac{1}{3}$; $V = s^3$ **$\frac{1}{27}$**

11) Evaluate "4 squared." **= 4x4 = 16**

12) The expression **120 + 15*n*** can be used to find the total price for ***n* students** to take a field trip to the science museum. Determine the cost if n = **3 students** to visit the science museum. **120 + 45 = $165**

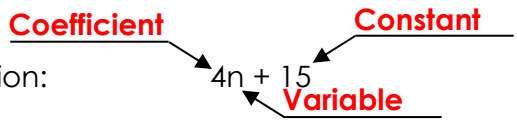
13) Factor to write an expression that is equivalent to **30x + 5**. **5(6x + 1)**

14) Translate into an algebraic expression: **nine less than the difference of seven squared and six**.
$(7^2 - 6) - 9$

15) Neveah and 4 of her friends order a large pizza for $8 and *n* medium drinks for $3 each. If they split these costs evenly, which expression can be used to find the amount each girl should pay?
(8 + 3n) ÷ 5 or $\frac{8+3n}{5}$

16) Write an example of the **commutative property**? **3 + 4 = 4 + 3 (Answers will vary.)**

17) Label the parts of the expression:



18) A family of four (2 adults and 2 kids) is going to the pumpkin patch. Regular admission is $12 for adults and $4 for kids. How much will they pay to get in? **$32**

19) Simplify the expression 7(n + 3) + 12n **19n + 21**

20) What are like terms? **Like terms are terms that have the same variable to the same power.**