

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

Name: 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: $(6^2 - 8 \div 4) + 27$ $(36 - 8 \div 4) + 27 \rightarrow 34 + 27 = \boxed{61}$
 $(36 - 2) + 27$
- 3) Write in exponential form: $7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 = 7^5$
- 4) Evaluate $3n^2 + 4n - n$ if $n = 7$ $3(7^2) + 4(7) - 7 \rightarrow 72 + 28 - 7 \rightarrow \boxed{93}$
 $3(49) + 28 - 7$
- 5) Write an expression that represents "12 more than a number?"
 $n + 12$
- 6) Simplify this expression by combining like terms: $7n + 15n^2 + 13n - 14n^2 - n + 17n = \boxed{36n + n^2}$
- 7) The cost of seeing a movie is \$8.25 for admission, plus an additional \$2.25 for each snack purchased. Write an expression to represent the cost of seeing a movie and purchasing s snacks.
 $8.25 + 2.25s$
- 8) Translate into an algebraic expression: **nine more than the quotient of seven cubed and six.** $\frac{7^3}{6} + 9$
- 9) Melissa and 4 of her friends rent a movie for \$5 and buy n medium drinks for \$3 each. If they split these costs evenly, write an expression that can be used to find the amount each girl should pay?
 $\frac{5 + 3n}{5}$
- 10) If the formula for the area of a triangle is $\frac{1}{2}bh$, find the area of a triangle with a base of 15 and a height of 16.
 $\frac{1}{2}(15)(16) = \frac{1}{2}(16)(15) = 8 \cdot 15 = \boxed{120}$
- 11) Evaluate "4 cubed." $4^3 = 4 \cdot 4 \cdot 4 = \boxed{64}$
- 12) Simplify the expression $7(n + 3) + 12n - 10$ $7n + 21 + 12n - 10 = \boxed{19n + 11}$
- 13) What are like terms? **Terms with same variable to the same power.**
- 14) Apply the distributive property to simplify the expression: $12(17x + 19)$
- 15) The expression $120 + 0.30m$ can be used to find the total price for renting a car, where m represents the number of miles driven. Determine the cost if $m = 130$ miles in the rental car.
- 16) Factor to write an expression that is equivalent to $30x + 5$.
- 17) Which expression is NOT equivalent to the others?
A) $7(6 + 9)$ B) $42 + 63$ C) $7 \cdot 15$ D) $7(6) \cdot 7(9)$
- 18) Write an example of the **commutative property**?
- 19) Label the parts of the expression:
 $4n + 15$
- 20) 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?