STAPLE

Name _____

Gillespie

Course 1: Ch7 Test Review

Algebraic Expressions

Directions: When working each of the following questions, be sure to show all work.

1) The volume of a certain cube can be found using the expression 8^3. Express 8^3 as a product of the same factor. Then determine the value.

a) $(8)(8)(8) = 512$

b) $(8)(8)$

c) $8 + 8 + 8 = 24$

d) $8 * 8 * 8 = 24$

2) Generate an equivalent expression for $2 \times 2 \times 2 \times 2 \times 2$ using an exponent.

a) 16

b) 32

c) 2^5

d) 5^2

3) Solve $5^3 + 9$

(hint: PEMDAS)

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4) Solve $12 + 3^2 - 8$
(hint: PEMDAS)

13

5) Solve $42 - 13 \times (5 - 3)$
(hint: PEMDAS)

16

6) Solve $7 - 4 + 8 \times 3$
(hint: PEMDAS)

27

7) Evaluate the expression xy if $x = 6$ and $y = 9$

54

8) Evaluate the expression $7 + 6n$ if $n = \frac{3}{4}$

11.5

9) Evaluate the expression $a - b + c$ if $a = 14$, $b = 3$, and $c = 7$

18

10) Write the phrase as an algebraic expression. 15 jumps less than Kelsy

a) $k - 15$

b) $k + 15$

c) $15m$

d) $\frac{k}{15}$

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11) Write the phrase as an algebraic expression. 6 times the amount of songs purchased

a) $6s$

b) $6s + s$

c) $6s + 6$

d) $6s - 6$

12) Write the phrase as an algebraic expression. 42 dollars less than what Emma earned

a) $e - 42$

b) $42 - e$

c) $e + 42$

d) $42e$

13) Factor 45 + 55 to generate an equivalent expression.

a) $5(9 + 11)$

b) $5(9 - 11)$

c) $45 + 55$

d) $5(45 + 55)$

14) **Generate an equivalent expression using the Distributive Property.** $6(b + 3)$

a) $6b + 12$

b) $6b + 3$

c) $6b + 18$

d) $6 * b + 3$

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15) **Generate an equivalent expression using the Distributive Property.** $7(2 + w)$

a) $14 + w$

b) $14w$

c) $72 + 7w$

d) $14 + 7w$

16) **Generate an equivalent expression using the Distributive Property.** $14(b + 2)$

a) $b + 28$

b) $14b + 32$

c) $14b + 2$

d) $14b + 28$

17) Simplify $6c - 4c + 3c$

a) $0c$

b) $1c$

c) $13c$

d) $5c$

18) Simplify $5(9a + 3b)$

a) $45a + 3b$

b) $9a + 15b$

c) $17ab$

d) $45a + 15b$

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19) Factor $70x + 60y$

a) $6(70x + 6y)$

b) $7(10x + 60y)$

c) $10(7x + 6y)$

d) $140x + 120y$

20) Factor $25x + 60y$

a) $25x + 60y$

b) $2(4x + 7y)$

c) $5(5x + 12y)$

d) $50x + 120y$