**Math Whiz Unit 3: Expressions**

**Exponents, Order of Operations, & Evaluating Expressions**

1. Which shows 8 • 8 • 8 in **exponential form**?

A. 38

B. 83

C. 512

D. 3 • 8

1. Find the value of $3^{ 4}.$

A. 12

B. 34

C. 64

D. 81

1. What is the value of $17^{0}?$

A. 0

B. 1

C. 17

D. cannot be determined

1. Evaluate: $\frac{(1+2)^{3}-12}{5}$

A. 0.6

B. 3

C. 4

D. 5

1. $Evaluate: 5^{2 }-\left(2×8\right)+ 9$

A. 0

B. 3

C. 17

D. 18

1. Evaluate: 5m2 ÷ (2m) for m = 4

A. 5

B. 10

C. 18

D. 50

1. Evaluate c2 – 2b if b = 12 and c = 7

A. 10

B. 25

C. 37

D. 198

**Name:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Translating Words to Expressions**

1. Which phrase is **NOT** the same as **2x + 5**?

A. The sum of 5 and twice a number

B. 5 more than the product of 2 and x

C. 5 added to 2 groups of x

D. Twice the sum of x and 5

1. Which algebraic expression represents how much prize money was won: “$20 less than last year’s prize.”

A. p – 20

B. 20 – p

C. 20p

D. 20 < p

1. Mila’s dog weighs 4 pounds more than the weight of Keiko’s dog. Which expression could be used to find the weight of Mila’s dog?

A. k + 4

B. 4k

C. 4 $÷k$

D. 4 - k

**Identifying Parts of Expressions**

1. Choose ALL of the **coefficients** in the expression. $5x^{3}-2x^{3}+ 6x-4$

A. 2

B. 3

C. 4

D. 5

E. 6

1. Which part of the expression 93 – (4 + 3) represents a sum?

A. 93

B. 93 – 7

C. 722

D. (4 + 3)

**Equivalent Expressions**

1. Simplify the expression: 8x + x2 + 9x2 + 5x

A. 23x2

B. 10x2 + 13x

C. 18x2 + 5x

D. 10x4 + 13x

1. Use the **distributive property** to find an equivalent expression for 3(2 + x).

A. 6 + x

B. 9x

C. 6x

D. 6 + 3x

1. Use the **distributive property** to find an equivalent expression for 5(2x – 1).

A. 10x – 5

B. 10x – 1

C. 5x

D. 10x + 5

1. Choose ALL expressions that are equivalent to 3x + 6 + x.

A. 4x + 6

B. 2x + 4x + 3

C. 10x

D. 4(x + 6)

E. 2(2x + 3)

1. Which expression is equivalent to

 2 + 3n + 2 + 9n?

**Unit 3 Mastery Score:**

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A. 16n

B. 3n + 8

C. 4(3n + 1)

D. 4(3n + 4)

**Answer Key:**

1. B
2. D
3. B
4. B
5. D
6. B
7. B
8. D
9. A
10. A
11. A, D, E
12. D
13. B
14. D
15. A
16. A, E
17. C