Math 6 **Worksheet 6**

NAME _____ DATE : _____

SECTION :_____ SCORE : _____

Grouping, Exponent, Multiplication, Division, Addition, and Subtraction(GEMDAS Rule)

MONDAY

An expression is a mathematical arrangement of a series of operations or operation signs, numbers, and grouping symbols. When you perform an expression with a series of operations, the rules below should be used:

RULE 1 : Simplify the operations inside the grouping symbols first parenthesis (), brackets [ ], and braces { }. Grouping symbols are always from the innermost set outward.

RULE 2 : Evaluate exponential expressions.

RULE 3 : Multiply and divide in the order they appear from left to right.

RULE 4 : Add and subtract in the order they appear from left to right.

e.g 1.

Expression	Interpretation	Explanation	Mathematical Operation Used
Subtract 2 from 10, then multiply by the quotient of 24 and 12 which is raised to the power of 2.	$(10 - 2)\,(24 \div 12)^2$	**Rule 1**: Simplify first the expression inside the parenthesis(Multiplication or Division) (Addition or Subtraction).	Division Subtraction
	$=(8)\,(2)^2$	Rule 2: Simplify the expression with exponent inside the parenthesis.	Multiplication
	$= (8)(4)$	Rule 3: Do the mathematical operation	Multiplication
Answer:			

e.g 2 Simplify: $42 - 4 \times 32 + 2\,(5 - 2)^3$

$= 42 - 4 \times 32 + 2\,(5 - 2)^3$ Simplify first the expression inside the parenthesis.

$= 42 - 4 \times 32 + 2\,(3)^3$ Simplify expression with exponent.

$= 42 - 4 \times 9 + 2\,(27)$ Perform multiplication.

$= 42 - 36 + 54$ Add and subtract the numbers in the order from left to right.

=

Activity 1 : Perform the given operations applying the rules of GEMDAS. Look at the given answer in each number, if the answer is correct write TRUE on the space provided, write FALSE if not.

_____ 1. $(-6)^2 - [(2 + 2 \times 3^2) \div 10]$ = 11

_____ 2. $(-4)^2 - [(4 + 3 \times 1^3) \div 2]$ = 34

_____ 3. $10 + [2(12 - 5) + 32] - 18 \div 3^2$ = 54

_____ 4. $(-5)^2 - [(4 + 2 \times 2^3) \div 10]$ = 27

_____ 5. $12 + 6 \times (5 - 3)^2$ = 36

TUESDAY :

Activity 2 Perform the series of operation to find the answer.

1. $(7 \times 9) + (3 \times 21)$ =
2. $(18 - 5) + 6 + 2$ =
3. $(3 + 5) \times (42 \div 7)$ =
4. $36 \div 2 + 4 \times (4 - 2)$ =
5. $(4 \times 5^2) + (3 \times 10)$ =

WEDNESDAY:

Activity 3 Write an expression for each statement .

1. Subtract 4 from 10, then multiply by the quotient of 24 and 3 equal 48.
   _____ = 48
2. Divide the product of 24 and 4 by 8 then subtract from the square of 3 equals 3.
   _____ = 3
3. Subtract 2 from 10, then multiply by the quotient of 24 and 12 which is raised to the power of 2 equals 32.
   _____ = 32

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4. Divide the sum of 17 and 4 by 7 then subtract from the cube of 5 equals 122

_____ = 122

5. An internet café owner paid a total of P240,700 for 10 monitors and 10 CPU's, all of the same brand. Each monitor cost P4,500. Find the cost of each CPU.

_____ = 19, 500

THURSDAY
Activity 4

1 In the expression **36 ÷ 2 + 4 × (4 – 2),** which must be done first following the GEMDAS pattern?

A. 36 ÷ 2 + 4 × (4 - 2)
B. 36 ÷ 2 + 4 × (4 - 2)
C. 36 ÷ 2 + 4 × (4 - 2)
D. 36 ÷ 2 + 4 × (4 – 2)

2. Find its value: $36 \div 2^2 + 4 \times (4 - 2)$

A. 16 B. 17 C. 18 D. 19

3. Lito and Lulu are both working on the value of the expression 12 – 3 + 18 ÷ 6 × 3. However, they arrived with different answers. Lito answered 8 while Lulu answered 18. Of the two students, who answered correctly?

A. Lala B. Lito C. Lulu D. none of the above

4. What is the answer to # 3

A. 18 B. 28 C. 38 D. 48

5 Jaime bought a pair of shoes costing ₱925.00 and a tie costing ₱275.00. He gave the seller ₱2,000.00. How much change did he receive?

A. 200 B. 400 C. 600 D. 800

Quarter 2, Week 6 Competency: Interprets and explains the Grouping, Exponent, Multiplication, Division, Addition, Subtraction (GEMDAS) rule.

Code : M6NS-IIf-148
Performs two or more different operations on whole numbers with or without exponents and grouping symbols.

Code : M6NS-IIf-149

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