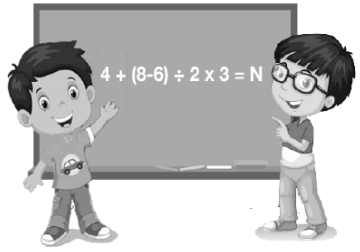
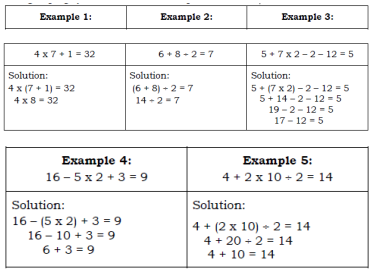
MATATAG K to 10 Curriculum – Weekly Lesson Log	School:		Grade Level:	V
	Teacher:		Learning Area:	MATHEMATICS
	Teaching Dates and Time:		Quarter:	1st QUARTER Week 3

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
I. CURRICULUM CONTENT, STANDARDS AND LESSON COMPETENCIES					
A. Content Standards	GMDAS Rules				
B. Performance Standards	Use the GMDAS rules for 3 or more different operations				
C. Learning Competencies	***Learning Competency*** *1. Perform three different operations by applying the GMDAS rules* *2. Perform three or more different operations by applying the GMDAS rules*				
D. Content	Perform three or more different operations by applying the GMDAS rules				
E. Integration	Realize the importance of following rules.				
II.LEARNING RESOURCES					
Bandejas, J., Reyes, D., Sagusay, E., and Dela Cruz Jr., E. (2020). *Phoenix Math for the 21st Century Learners*. Phoenix Publishing House. Inc. Quezon City Basic Math Explained. (2023). *Order of Operations*. [video]. Youtube. https://youtu.be/mEmyTvvGqrc Camarista, G. G. (2020). *Teaching Mathematics in the Intermediate Grades*. Lorimar Publishing Inc. Jalon, H. F. et. al. (2019). *Phoenix Math for the 21st Century Learners*. Phoenix Publishing House, Inc., Quezon City Misa, E. L. (2019). *The World of Mathematics and Beyond*. Brilliant Creations Publishing, Inc., Quezon City Yn, G. U. (2017). *Our World of Math*. Vibal Group, Inc., Quezon City					
III. TEACHING AND LEARNING PROCEDURES					
A. Activating Prior Knowledge **1. Short Review:**	Perform the indicated operations. a. 100 + 25 b. 250 – 105	Directions: Simplify the expressions below. 1) 40 ÷ 2 x 4 + 6 = ____	Directions: Put ☺ if the numerical expression is simplified correctly and put ☹ if the numerical	Follow the GMDAS rule to find the answer.	***Directions:*** A. Copy the letter of the correct answer on the separate sheet of paper.

	c. 12 x 30 d. 200 ÷ 5 e. 20 – 4 – 3	A. 11 B. 20 C. 46 D. 86 6) 18 ÷ 6 x 4 – 3 + 6 = ____ A. 3 B. 11 C. 15 D. 20 7) 14 – 8 + 3 + 8 x 24 ÷ 8 = ____ A. 27 B. 33 C. 37 D. 43	expression is solved incorrectly. ___1) 15 – 3 + 20 ÷ 5 × 3 = 15 – 3 + 4 x 3 = 15 – 3 + 12 = 12 – 12 = 0 ___2) (6 × 6) – 9 + 8 = 36 – 9 + 8 = 36 – 17 = 19 ___3) 22 – 15 ÷ 7 + 10 = 7 ÷ 7 + 10 = 1 + 10 = 11 ____4) (4 × 6 ÷ 3) – 7 + 7 = (24 ÷ 3) – 7 + 7 = 8 – 7 + 7 =1 + 7 = 8 ____5) 25 ÷ 5 × 4 – 15 + 12 = 25 ÷ 20 – 15 + 12 = 25 ÷ 5 + 12 = 5 + 12 = 17	1.) 3 + 5 – 6 + 8= 2.) 12-4 x 2+3 = 3.) 48÷8+2-5= 4.) 8 x 9 + 48 ÷6 = 5.) 63÷ 7 + 16-12=	1. Which part of the problem (12 + 4) – 5 is found inside the parentheses? A. 4 B. 12 C. 4 – 5 D. 12 + 4 2. Seven times eight is equal to ____. A. 14 B. 48 C. 54 D. 56 3. 10 ___ 5 + 1 = 51, what should be the missing operation symbol to make the statement correct? A. + B. x C. ÷ D. – ***For numbers 4 & 5,*** *read the situation inside the box then answer.* Mr. Cruz harvested 2 867 sacks of rice from the first harvest, 1 996 from the second and 996 from the third. He sold 4 390 sacks of rice. 4. From the problem above, what is the mathematical sentence? A. 2 867 + 1 996 + 996 + 4 390 = N B. 4 390 - (2 867 + 1 996 + 996) = N C. (2 867 + 1 996 + 996) – 4 390 = N D. (2 867 + 1 996) - (996 + 4 390) = N 5. How many sacks of rice were not sold? A. 1 469 B. 1 523

					C. 2 394 D. 3 394
B. Establishing Lesson Purpose					
1. Lesson Purpose:	Solve the following: a. 30 – 15 + 2 b. 20 x 2 ÷ 4	You may recall, the rules on order of operations by performing the expressions given below. 1) 4 + 6 - 9 = 2) 13-5 x 2 + 3= 3) 45 ÷ 5 -10 ÷ 5 = 4) 15 – 5 + 2 =	Directions: Below are incomplete expressions. Complete them by finding the missing numbers from the numbers provided in the lower box. Write your answer in your activity notebook. 1) 70 ÷ __ + 5 + 4 – 3 = 16 2) (6 x __ + 2) - 25 = 13 3) 3 x (4 + 4) – __ = 20 4) 5 x 3 + 25 ÷ __ = 20 5) __ ÷ 2 – 3 + 2 x 2 = 6 7 4 5 6 10 12	*Pepe and Pipo were challenged to answer this number problem 4 + (8 – 6) ÷ 2 x 3 = N. The one who could get the correct answer gets a token from their mother.* *Both took the challenge excitedly. They analyzed the number problem and solved for it. Pepe's answer was 9 and Pipo had 7. Who do you think got the token?* 	**Direction:** Simplify each expression. 1) 23 + 200 ÷ 2 = 2) 56 ÷ 8 + 4 x (8 – 2) = 3) 92 + [(8 + 2) x 5] = 4) (10 + 11) x 4 + (60 ÷ 15) = 5) 4 (18 – 3) + 16 =
2. Unlocking Content Vocabulary	**GMDAS** – Grouping symbols, Multiplication, Division, Addition and Subtraction GMDAS rule states the order of operations when performing series of operations. According to this rule, perform operations first within the grouping symbols, then do multiplication or division before adding or subtracting. Multiply or divide from left to right. Add or subtract from left to right.				
C. Developing and Deepening Understanding					
SUB-TOPIC 1: ☐ **Explicatio n**	**Perform three different operations by applying the GMDAS rules**	Did you know that there is a rule that can help us when solving a series of operations? The rule is	**Apply GMDAS in performing three or more operations**	Use grouping symbols to make each equation correct.	***Directions***: Carefully read, analyze and simplify

	During his birthday, Gelo received P2,000.00. He bought 2 shirts at P400.00 each. How much change will Gelo receive? Which equation gives the correct answer? A. P2,000 - P400 + 400 = 1, 200 B. P2,000 – 2 x P400 = 1, 200 (correct answer) Ask: When more than one operation is involved in an equation, which should be performed first?	called PMDAS, which stands for Parentheses, Multiplication, Division, Addition, and Subtraction. It may also be called GMDAS when other Grouping symbols are used. The PMDAS or GMDAS rule tells us that in simplifying expressions involving a series of operations, we first simplify all operations inside the Parentheses (( )) or other Grouping Symbols like braces ({ }) and brackets ([ ]). Second, perform Multiplication or Division, whichever comes first from left to right. Third, do the Addition or Subtraction, whichever comes first from left to right also. Study this example. What should be the correct answer to this one?	Ask the learners to state GMDAS rule GMDAS Rule a. Perform the operations within each pair of grouping symbols (G) (parenthesis, brackets, and braces) beginning with the innermost pair b. Then, multiply (M) or divide (D) from left to right. c. Lastly, add (A) or subtract (S) from left to right.		your answer to the given problems. Use a separate sheet of paper. Number 1 is done for you. 1. Sylvia bought 4 melons for Php50.00 each and 1 kg of mango for Php80.00. Write the number problem to represent the situation and then find the total cost in all. *Number Problem:* ***(4 x Php50.00) + Php80.00 = N*** *Total cost of fruits:* ***Php280.00*** 2. Robert bought 2 pies for Php9.00 each and 3 medium hotcakes for Php5.00 each. Write the number problem to represent this situation and then find the total cost. *Number Problem:* _____ _____ __ *Total cost of pies and hotcakes bought:* _____

					3. April pays Php150.00 for the materials to make earrings and bracelets. She makes 7 earrings and 3 bracelets. She sells 7 earrings for Php20.00 each and 3 bracelets for Php12.00 each. Write the number problem to represent this situation and then find April's profit. *Number Problem:* _____ _____ *The amount of profit April got:* _____ 4. Jose bought 3 pairs of pants for Php750.00 each and paid Php2,500.00. Write the number problem to represent this situation and then find how much Jose gets back from the cashier.

					Number Problem: _____ _____ _____ *The amount Jose got back from the cashier:* _____ 5. The price of a shirt is Php100.00. The store manager gives a discount of Php50.00 per shirt. A man and his brother bought 4 shirts and then share the cost with his brother. Write the number problem to represent this situation and then find the amount paid by each brother. *Number Problem:* _____ _____ _____ *The amount paid by each brother:* _____
☐ **Worked Example**	**GMDAS Rule** a. Perform the operations within each pair of grouping symbols (G) (parenthesis, brackets,	Directions: Perform the operations by applying the GMDAS Rules. Write your answer on a separate sheet of paper.	**Example 1. 25 – 5 x (16 – 12) ÷ 2** 25 – 5 x (16 – 12) ÷ 2 → Do the operation inside the parentheses first. = 25 – 5 x 4 ÷ 2 → Multiply. = 25 – 20 ÷ 2 → Divide. = 25 – 10 → Subtract. = 15	**Use grouping symbols to make each equation correct.**	**Direction:** Use the numbers1, 3, 5, and 10 once in each exercise to make a true statement.

and braces) beginning with the innermost pair b. Then, multiply (M) or divide (D) from left to right.
c. Lastly, add (A) or subtract (S) from left to right.

Apply GMDAS in performing the indicated operations.

Example 1: 16 + 9 ÷ 3 x 4

16 + 9 ÷ 3 x 4 → Divide first.
= 16 + 3 x 4 → Multiply before adding.
= 16 + 12 → Add.
= 28

Look at the GMDAS Rule.

Which operation should be performed first according to the GMDAS rule?

What should be the next operation that must be performed after performing the first?

Example 2: (9 + 6) ÷ 3 – 2

(9 + 6) ÷ 3 – 2 — Add numbers inside the parenthesis
= 15 ÷ 3 – 2 — Divide before subtracting
= 5 – 2 — Subtract
= 3

Example 3: 150 ÷ (80 – 50) + 95

150 ÷ (80 – 50) + 95 — Subtract numbers inside the parenthesis
= 150 ÷ 30 + 95 — Divide before adding
= 50 + 95 — Add
= 145

1. $\frac{4}{3} \times \frac{5}{4} + \frac{11}{6} \div \frac{3}{5}$
2. $\left(\frac{9}{2} + \frac{5}{2}\right) \div \frac{11}{2} \div \frac{1}{5}$
3. $\left(\frac{11}{3} - \frac{7}{3} + \frac{3}{4}\right) \div \frac{2}{5} \times \frac{5}{6}$
4. $9.4 + (1.5 + 6.5) \times 6.7 - 4.5$
5. $(5.4 \div 0.6) \times 5.5 - (3.6 + 6.7)$

Example 2. 280 – 45 ÷ 15 + 9 x 3

280 – 45 ÷ 15 + 9 x 3 → if dividing and multiplying at once will not affect the result of the expression, you may do operations simultaneously
= 280 – 3 + 27 → Subtract.
= 277 + 27 → Add.
= 304

Example 4. 25 + 15 - (6 x 2) + 60

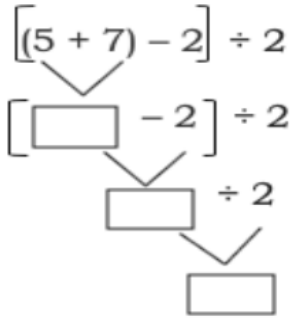
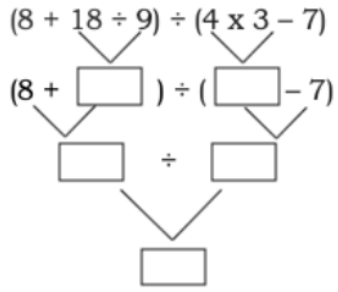
25 +15 - (6 x 2) + 60 → Do the operation inside the parentheses first.
= 25 + 15 – 12 + 60 → Add.
= 40 – 12 + 60 → Subtract.
= 28 + 60 → Add.

1. $14 - 2 \times 4 \div 6 = 8$
2. $28 \div 2 - 4 \times 7 = 70$
3. $64 \div 8 \times 5 - 3 + 5 = 21$
4. $17 - 3 + 4 \times 3 = 26$
5. $9 + 2 \times 8 - 2 - 3 = 18$

1) (____ **x** ____) ÷ (____ + ____) =6
2) (____ + ____) ÷ (____ **x** ____) = 7
3) (____ + ____) ____ ÷ ____ = 28
4) ____ ÷ (____ – ____) ____ = 2
5) ____ + (____ – ____) ____ = 36

	Example 4: 95 - 30 x 4 ÷ 12 95 - 30 x 4 ÷ 12 — Multiply first = 95 – 120 ÷ 12 — Divide = 95 – 10 — Subtract = 85 **Example 5: [(45 ÷ 5) – 7] x 100** [(45 ÷ 5) – 7] x 100 — Perform operation inside the parenthesis = [9 – 7] x 100 — Subtract numbers inside the bracket = 2 x 100 — Multiply = 200				
☐ **Lesson Activity**	**Apply GMDAS rule in performing the different operations.** **1.** 7 × 2 − (9 + 2) = **2.** (6 ÷ 3) × (11 − 4) = **3.** 9 × 3 + (20 − 18) = **4.** (47 − 17) + 10 × 3 = **5.** 10 ÷ [9 – (2 x 2)] = **6.** 3 + 6 x (5 + 4) = **7.** (25 + 11) x 2 ÷ 9 = **8.** (100 - 16) ÷ 12 - 5 = **9.** 8 ÷ 4 x (5 + 9) = **10.** 81 ÷ (20 + 7) x 6 =	Directions: In column A are numerical expressions and their corresponding answers are written in column B. Write the letter that corresponds to the correct answer on a separate sheet of paper. **A** ___ 1) 6 + (9 ÷ 3 x 4) ___ 2) 3 x [(9 + 15) ÷ 8] ___ 3) 4 x [18 ÷ 2 x (10 – 8)] ___ 4) (15 – 6) + (4 – 1) x 8 ___ 5) 2 x [3 + 2 x (10 - 9)] **B** A. 9 B. 35 C 10 D. 18 E. 72 F. 71	**Apply GMDAS rule in performing the different operations.** 1. 48 ÷ 6 + (5 × 6) × 13 + 6 2. (18 ÷ 3) + 6 + (14 - 8) × 5 3. (12 ÷ 3) + 3 + (16 - 7) × 4 4. 6 ÷ 3 + 24 - 25 ÷ 5 5. 4 + 2 × 18 ÷ 6 – 9	Solve the following using GMDAS rule. 1. (20 + 12) ÷ 4 = _____ 2. 50 + 6 × (11 − 4) = _____ 3. 9 × (12 − 8) + 28 ÷ 7 = _____ 4. 7 × 2 − (9 + 2) + 14 = _____ 5. 11 × 4 − (6 + 3 + 13) ÷ 2 = _____ 6. 36 ÷ 3 × [(7 − 2 − 4) × 2] = _____ 7. 18 + (21 − 5) ÷ (22 − 18) = _____ 8. (6 ÷ 3 + 5) × (11 − 4) = _____ 9. 8 x (36 ÷ 2) – (56 + 24) ÷ 4 = _____ 10. 20 – [5 x (7 + 2) ÷ 3] = _____	***Directions***: Solve the given mathematical statement below. Write **TRUE** if statement is correct and **FALSE** if it is not. Use a separate sheet of paper for your answer. 1. **7 x (3 + 4) – 5 = 79** 2. **(14 x 5) + 12 – (2 x 6) = 80** 3. **18 – (7 + 9) ÷ 4 = 2** 4. **(5 x 6) + (8 ÷ 2) – 4 = 30** 5. **[(7- 4) x 10] x 3 ÷ 5 = 18**
D. Making Generalization ☐ **Learners' Takeaways** ☐ **Reflection on Learning**	*What I learned about GMDAS Rule?* The four basic operations are _____, _____, _____, and _____. — **MD** – Next, _____or _____ from left to right. **G** – Simplify the expressions inside the _____ symbols first. — **AS** – Last, _____or _____ from left to right.	How can we connect this lesson to our everyday lives? Cite instances where knowledge of GMDAS is useful in practical contexts			
IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION					
A. Evaluating Learning					
Formative Assessment	Solve the following problems using the order of operations.	**Complete the given solution.**	***Directions***: Complete the following to make the	**Insert operation symbols +, -, x, ÷, and**	***Directions***: Read and analyze each

	Choose your answer on the given choices. Write the letter of the correct answer on the space before each number. Use CAPITAL letters. (2 points each) ____1. 10 + 4 – 8 A. 5 B. 6 C. 7 ____2. (3 + 4 x 6) ÷ 9 A. 3 B. 4 C. 5 ____3. 100 – 45 – (16 + 3 x 3) A. 20 B. 25 D. 30 ____4. 7 x 2 – 10 ÷ 5 A. 12 B. 11 D. 10 ____5. 5 x (12 – 9) + 25 A. 30 B. 40 D. 50	1. 45 ÷ 5 + 7 = _____ + 7 = _____ 2. 45 x 3 – 36 ÷ 2 = _____ – _____ = _____ 3. 4 + 2 x 3 – 10 = 4 + ___ – 10 = ____ – 10 = ____ 4. 33 -3 + 20 = ____ + 20 = ____ 5. 9 x (4 + 8) ÷ 6 = 9 x ____ ÷ 6 = _____ ÷ 6 = _____	statement correct. Do it in a separate sheet of paper. 1.) 7 x (24 ÷ 4) + 2 x 5 7 x ☐ + 2 x 5 ☐ + ☐ ☐ 2.) 10 + 6 - [7 + (10 – 5)] 10 + 6 - [7 + ☐] 10 + 6 - ☐ ☐ - ☐ ☐ 3.) 4 x [(6 + 8) ÷ 2] - 12 4 x [☐ ÷ 2] - 12 4 x ☐ - 12 ☐ - 12 ☐	**( ) to make the equation correct.** 1. 3 ___ 7 ___ 10 = 20 2. 2 ___ 7 ___ 3 = 17 3. 16 ___ 4 ___ 5 = 100 4. 3 ___ 3 ___ 3 ___ 3 = 1 5. 3 ___ 3 ___ 3 ___ 3 = 0 6. 2 ___ 7 ___ 3 = 23 7. 5 ___ 6 ___ 7 = 4	item carefully. Write your answer on a separate sheet of paper. 1. What is the value of *N* in the expression **3 x 7 + 6 – 2 + 4 ÷ 2 + 7 = N?** A. 11 B. 34 C. 47 D. 85 2. In this series of operations **64 ÷ 8 x (12 – 2) + 5** , which operation will be solved last? A. addition B. division C. multiplication D. subtraction 3. Simplify the given series of operations: **(8 ÷ 4) + 3 + (14 – 8) x 7** A. 19 B. 47 C. 63 D. 73 4. What is the first step in solving problem using PMDAS or GMDAS Rule? A. add B. divide C. multiply

			4.)  5.) 		D. perform operation inside the parentheses 5. Evaluate: 60 + (40 – 30) x (2 + 8) x 5 A. 140 B. 500 C. 560 D. 660
Homework					
B. Teacher's Remarks:	Note observations on any of the following areas:	**Effective Practices**	**Problems Encountered**		
	strategies explored				
	materials used				
	learner engagement/ interaction				
C. Teacher's Reflection	*Reflection guide or prompt can be on:* • • *principles behind the teaching* *What principles and beliefs informed my lesson?* *Why did I teach the lesson the way I did?* • • *students*				

	What roles did my students play in my lesson? *What did my students learn? How did they learn?* • • *ways forward* *What could I have done differently?* *What can I explore in the next lesson?*	

PREPARED BY: