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Mathematics

Quarter 1 - Module 19: Week 10
Performing Series of Operation (MDAS)

ALTERNATIVE DELIVERY MODE
ADM

Department of Education • Republic of the Philippines

Mathematics – Grade 4
Alternative Delivery Mode

Quarter 1 - Module 19: Performing Series of Operations
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This instructional material was collaboratively developed and reviewed by educators in the public schools. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of education at region10@deped.gov.ph.

We value your feedback and recommendations.

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What This Module is About

This module will enhance your ability in performing series of operations.

As Grade four pupils it is important for you to know how to perform the four fundamental operations in Mathematics to solve different Math problems involving series of operations. Problems with the presence of 2 or combination of operations; addition, subtraction, multiplication, and division.

What I Need to Know

This module aims to:

1. Performs series of two or more operations
2. Solve the equation on Multiplication, Division, Addition and Subtraction (MDAS)

How to Learn from this Module

For you to achieve the objectives cited above, you are to do the following:

- Take your time reading the lessons carefully.
- Follow the directions and/or instructions in the activities and exercises diligently.
- Answer all the given tests and exercises.

Icons of this Module

	What I Need to Know	This part contains learning objectives that are set for you to learn as you go along the module.
	What I Know	This is an assessment as to your level of knowledge to the subject matter at hand, meant specifically to gauge prior related knowledge.
	What's In	This part connects previous lessons with that of what you are going to learn.
	What's New	An introduction of the new lesson through various activities, before it will be presented to you.
	What is It	These are discussions of the activities as a way to deepen your discovery and understanding of the concept.
	What's More	These are follow-up activities that are intended for you to practice further in order to master the competencies.
	What I Have Learned	Activities designed to process what you have learned from the lesson
	What I Can Do	These are tasks designed to showcase your skills and knowledge gained, and applied into real-life concerns and situations.
	Post Assessment	This assessment evaluates your level of mastery in achieving the learning objectives.
	More Activities	These are additional activities designed to increase the level of your skills and knowledge.

What I Know

Direction:

Evaluate the following expressions:

1. 9 x 14 – 9 =
2. 54 + 57 x 7 =
3. 69 + 5 x 8 =
4. 24 – 8 ÷ 8 =
5. 3 x 8 ÷ 8 =
6. 9 x 9 – 5 + 9 =
7. 8 + 8 x 7 – 5 =
8. 4 x 7 – 15 ÷ 3 =
9. 35 – 10 ÷ 5 + 9 =
10. 9 + 5 x 4 - 12 =

Lesson 1 Performing Series of Operations (MDAS)

This module helps you to perform series of operation.

What's In

Before you learn a new lesson, you have to review first the previous topic.

Let us solve the problems below.

1. I am thrice the difference of 9 and 4. What number am I?

2. I am twice the sum of 9 and 7. What number am I?

3. I am 9 more than the quotient of 24 and 3. What number am I?

4. I am 4 less than the product of 8 and 5. What number am I?

5. I am 20 more than the quotient of 81 and 9. What number am I?

What's New

Look at the number sentences below.

8 x 3 - 4 = N	32 – 7 x 5 = N	8 x 9 – 8 + 6 = N
18 – 2 ÷ 6 + 7 = N	12 – 3 + 18 ÷ 6 x 7 = N	

- How did you obtain the answer?
- How many operations are there in each problem?

What is It

Study the following:

6 x 3 + 4 = Rule 1 - Multiply

18 + 4 Rule 2 - Add

22

Thus, 6 x 3 + 4 = 22

45 – 7 x 3 Rule 1 Multiply

45 – 21 Rule 2 Subtract

24

Thus, 45 – 7 x 3 = 24

In order to have uniform procedure in solving series of operations, **MDAS** rule is introduced. **MDAS** refers to the order in which you should follow when carrying out a series of operations. It stands for MULTIPLICATION, DIVISION, ADDITION, and SUBTRACTION. Order of operations tells you to perform multiplication and division first, working from left to right, before doing addition and subtraction.

What's More

Direction: Compute for the value of N.

1. 21÷ 3 + 7 – 8 = N
2. 8 + 5 x 6 = N
3. 8 x 6 + 9 ÷ 3 = N
4. 10 + 25 ÷ 5 x 7= N
5. 6 x 6 ÷ 2 + 5 = N
6. 5 x 2 + 10 ÷ 5 = N
7. 21 ÷ 7 x 5 + 7 = N
8. 40 ÷ 4 + 8 x 7 = N
9. 5 x 8 + 48 ÷ 4 = N
10. 33 – 5 x 3 ÷ 5 + 9 = N

What I Have Learned

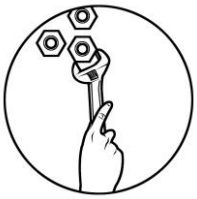
In performing a series of two or more operations, follow the **MDAS** rule.

MDAS stands for the four basic operations (**M**ultiplication, **D**ivision, **A**ddition, and **S**ubtraction).

Multiply or divide first in the order as they come from left to right. Add or subtract in the order as they come from left to right.

Remember:

Do **Multiplication** or **Division** first before you do **Addition** or **Subtraction**.



What I Can Do

Direction:

Write **T** if the mathematical statement is true and **F** if it is false.

____1. 42 ÷ 6 – 3 + 8 = 12

____2. 7 x 3 + 6 ÷ 7 = 6

____3. 27 ÷ 9 x 4 + 6 = 18

____4. 8 x 3 + 16 – 4 = 36

____5. 2 x 6 + 35 ÷ 5 = 19

____6. 6 x 8 – 4 ÷ 2 + 9 = 31

____7. 54 ÷ 9 + 6 x 3 = 24

____8. 36 ÷ 4 + 2 x 8 = 25

____9. 18 + 6 – 24 ÷ 4 = 18

____10. (24 – 6) ÷ 3 + 7 = 15

Post Assessment

Direction:

A. 1. Use the digits 3, 7 and 6 once to make the statement true.

☐ X ☐ - ☐ = 11

B. Answer the following exercises.

2. 42 ÷ 2 x 8 + 7 – 6 = ☐
3. 8 x 5 ÷ 5 – 8+ 15 = ☐
4. 15 x 2 ÷ 5 + 8 – 5 = ☐
5. 48 ÷ 8 x 5 – 9 = ☐
6. 81 – 9 ÷ 3 x 7 = ☐
7. 7 x 7 - 6 + 6 = ☐
8. (27 ÷ 3) + (2 x 6) – 7 = ☐
9. 8 x 8 + 23 = ☐
10. 9 x 6 ÷ 3 = ☐

Additional Activities

A. Write the correct operation symbols in the ☐ to make the expression right.

1. 35 ☐ 3 ☐ 7
   = 105 ☐ 7
   = 98

2. 42 ☐ 18 ☐ 3
   = 42 ☐ 6
   = 36

3. 56 ☐ 8 ☐ 18
   = 7 ☐ 18
   = 126

4. 9 ☐ 9 ☐ 13
   = 81 ☐ 13
   = 68

5. 3 ☐ 7 ☐ 4
   = 21 ☐ 4
   = 25

B. Evaluate the following expressions.

6. 5 x 3 + 7 = _____

7. 84 ÷ 3 x 8 = _____

8. 76 – 9 + 6 = _____

9. 60 + 48 ÷ 2 x 7 = _____

10. 7 x 9 ÷ 3 – 9 + 7 = _____

Answer Key

What I Know
1.117
2. 353
3. 109
4.23
5. 3
6. 85
7. 59
8. 23
9. 42
10.17

What's In
1.15
2.32
3.17
4.36
5.29

What's More
1.6
2.38
3.51
4.45
5.23
6.12
7. 22
8.66
9.52
10.39

Additional Activities
1. X, -, -
2. -, ÷, -
3. ÷, x, x
4. X, -, -
5. X, +, +
6. 22
7. 224
8. 73
9. 228
10. 19

Post Assessment
1.A. 6 x 3 – 7 = 11
2. 169
3.15
4.9
5.21
6.60
7. 49
8. 14
9. 87
10.18

What I Can Do
1.T
2.F
3.T
4.T
5.T
6.F
7.T
8. T
9.T
10.F

Reference:

1. Tabilan, A., I. J. Arce., R. Pascua., Calayag, N., L. Dacuba., D. Borias., Buemia, R., M. Colao., l. Morandante.,Danao, A., l. Gonzaga.,I. Briones and J. A Daganta (2015) Mathematics – Grade 4 Teachers Guide., Department of Education

2. Tunog, Cyrene Mae F., Jean B. Liberato (2017) Mathematics Worksheets for First Grading, Department of Education Valencia City

3. Chingcuangco, Ofelia G, M.A.Ed (2019)-Soaring High with Mathematics Grade 4 Teachers Guide., Department of Education

4. http://www.montereyinstitute.org/courses/DevelopmentalMath/COURSE_TEXT_RESOURCE

5. https://www.scribd.com/doc/288587094/MDAS-Rule

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