



4

MATHEMATICS

Quarter 1



PIVOT **4A** **LEARNER'S MATERIAL**

Republic Act 8293, section 176 states that: No copyright shall subsist in any work of the Government of the Philippines. However, prior approval of the government agency or office wherein the work is created shall be necessary for exploitation of such work for profit. Such agency or office may, among other things, impose as a condition the payment of royalties.

Borrowed materials (i.e., songs, stories, poems, pictures, photos, brand names, trademarks, etc.) included in this book are owned by their respective copyright holders. Every effort has been exerted to locate and seek permission to use these materials from their respective copyright owners. The publisher and authors do not represent nor claim ownership over them.

This module is a resource of information and guide in understanding the Most Essential Learning Competencies (MELCs). Understanding the target contents and skills can be further enriched thru the K to 12 Learning Materials and other supplementary materials such as worksheets/activity sheets provided by schools and/or Schools Division Offices and thru other learning delivery modalities including radio-based and TV-based instruction (RB/TVI).

Mathematics

Grade 4

Regional Office Development Team: Job. S. Zape, Jr., Romyr L. Lazo, Fe M. Ong-Ongowan, Lhovie A. Cauilan, Ephraim L. Gibas

Schools Division Office Development Team: Alnie D. Coronado, Jonalyn E. Perido, Jorge A. Miguel, Marilou C. Dimapilis, Josielyn P. Medina, Kennet B. De Manuel, Maribel R. Villanueva, Celia R. Lubigan, Lylaine Vistal Billona, Nancy E. Salamat, Maria C. Pedernal, Rhidel M. Cabintos, Rhea Kristine R. Ordoño, Dr. Anicia J. Villaruel, Dr. Roselyn Q. Golfo and Elleden Grace L. Denosta, Elsie R. Reyes, Jonathan A. Almirante, Elizalde L. Piol, Elleden Grace L. Denosta, Joe Angelo L. Basco, Anselma M. Ebero, Mary Joy A. De Leon, Rencie O. Majillo

Mathematics Grade 4
PIVOT IV-A Learner's Material
Quarter 1
First Edition, 2020

Published by: Department of Education Region IV-A CALABARZON
Regional Director: Wilfredo E. Cabral
Assistant Regional Director: Ruth L. Fuentes

Guide in Using PIVOT Learner's Material

For the Parents/Guardian

This module aims to assist you, dear parents, guardians, or siblings of the learners, to understand how materials and activities are used in the new normal. It is designed to provide the information, activities, and new learning that learners need to work on.

Activities presented in this module are based on the Most Essential Learning Competencies (MELCs) for English as prescribed by the Department of Education.

Further, this learning resource hopes to engage the learners in guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

For the Learners

The module is designed to suit your needs and interests using the IDEA instructional process. This will help you attain the prescribed grade-level knowledge, skills, attitude, and values at your own pace outside the normal classroom setting.

The module is composed of different types of activities that are arranged according to graduated levels of difficulty—from simple to complex. You are expected to **answer all activities on separate sheets of paper** and submit the outputs to your respective teachers on the time and date agreed upon.

PARTS OF PIVOT LEARNER'S MATERIAL

	Parts of the LM	Description
Introduction	What I need to know	The teacher utilizes appropriate strategies in presenting the MELC and desired learning outcomes for the day or week, purpose of the lesson, core content and relevant samples. This allows teachers to maximize learners awareness of their own knowledge as regards content and skills required for the lesson
	What is new	
Development	What I know	The teacher presents activities, tasks , contents of value and interest to the learners. This shall expose the learners on what he/she knew, what he /she does not know and what she/he wanted to know and learn. Most of the activities and tasks must simply and directly revolved around the concepts to develop and master the skills or the MELC.
	What is in	
	What is it	
Engagement	What is more	The teacher allows the learners to be engaged in various tasks and opportunities in building their KSA's to meaningfully connect their learnings after doing the tasks in the D. This part exposes the learner to real life situations /tasks that shall ignite his/ her interests to meet the expectation, make their performance satisfactory or produce a product or performance which lead him/ her to understand fully the skills and concepts .
	What I can do	
	What else I can do	
Assimilation	What I have learned	The teacher brings the learners to a process where they shall demonstrate ideas, interpretation , mindset or values and create pieces of information that will form part of their knowledge in reflecting, relating or using it effectively in any situation or context. This part encourages learners in creating conceptual structures giving them the avenue to integrate new and old learnings.
	What I can achieve	

Visualizes Numbers up to 100 000 with Emphasis on Numbers

Lesson

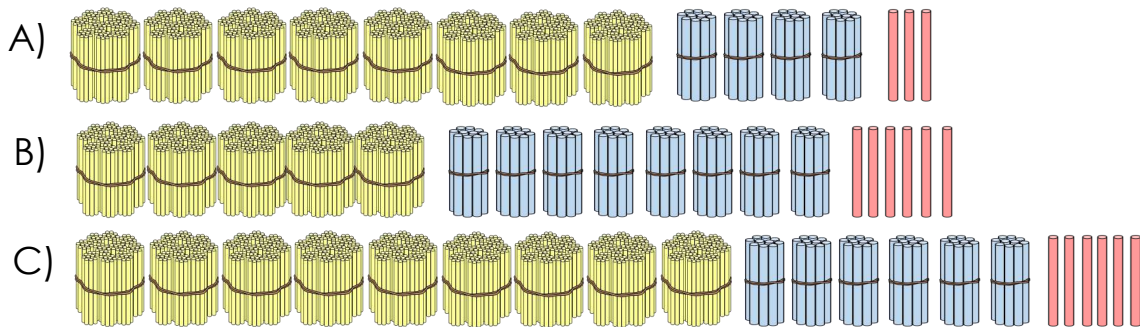
WEEK

1

I

There are many ways to understand and visualize how big the number is. Using the representations of blocks, charts, tables, blocks and disc we can able to understand the numbers. After going through this lesson, you are expected to visualize numbers, up to 10,000, give place value and value, reads and writes numbers in symbols and words, and compare them using relation symbols.

Learning Task 1: Based on the picture model below, answer the given questions. Write your answer in your notebook.



1. How many _____ 1000s _____ 100s _____ 1s do we have?
2. How many _____ 1000s _____ 100s _____ 1s do we have?
3. How many _____ 1000s _____ 100s _____ 1s do we have?
4. What is the total number of sticks in letter A? _____
5. What is the total number of sticks in letter B? _____
6. What is the total number of sticks in letter C? _____

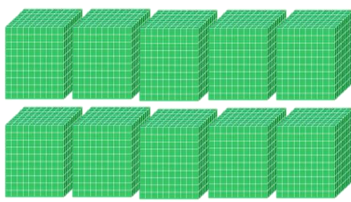
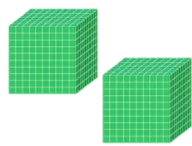
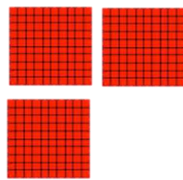
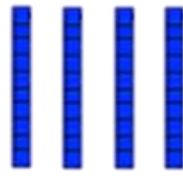

D

One way to visualize how big the number is by representation using number disc. Look at the example below.

10,000	1,000	100	10	1
10,000	1,000	100	10	1
10,000	1,000	100	10	1
	1,000	100	10	1
		100	10	1
		100	10	1
		100	10	1

- There are three 10,000s four 1,000s five 100s six 10s and nine 1s.
- It can be express as $30,000 + 4,000 + 500 + 60 + 9 = 34,569$. It is called expanded form
- 34,569 is read as "Thirty four thousand, five hundred sixty-nine"

Another way to visualize how big the number is by representation using the blocks and grids. Look at the example below.

Ten Thousands	Thousands	Hundreds	Tens	Ones
				
1	2	3	4	9

- There are one 10,000s two 1,000s three 100s four 10s and nine 1s.
- The place value of 1 is in the ten thousands place which has a value 10,000. The place value of 2 is in the thousands place which has a value of 2,000. The place value of 3 is in the hundreds place which has a value of 300. The place value of 4 is in the tens place which has a value of 40 and the place value of 9 is in the ones place.
- It can be express as $10,000 + 2,000 + 300 + 40 + 9 = 12,349$. It is called expanded form
- 12,349 is read as “Twelve thousand, three hundred forty-nine”



How important zero number in the place value? The digit “0” is an important place holder in a number.

For example, in the number 89,056 is read as eighty nine thousand, and fifty-six. **With the place of zero**, the value of the digit 9 is 9,000. **Without the place of zero** the number becomes 8,956 which means the value of 9 will be 900 and the number is read as “eight thousand, nine hundred fifty six”.

These numbers are different. Let us try to compare 89,056 and 8,956. Which do you think is bigger number? In comparing a number, we started to compare from the highest place value of each digit or starting from the left. Showing to you below is how you are going to compare the number. Example: Compare 89,056 and 8,956

T-Th	Thou	Hun	Tens	Ones
8	9	0	5	6

Thou	Hun	Tens	Ones
8	9	5	6


 The value of **8** in 89,056 is **80,000**,
 while the value of **8** in 8,956 is **8,000**


Thus, 89,056 is greater than 8,956 or $89,056 > 8,956$



Learning Task 2: Use number discs to show the following numbers. Write your answer in your notebook.

1. 32 310

--	--	--	--	--

2. 31 579

--	--	--	--	--

Learning Task 3: Draw a number discs on your notebooks to show or represent the following numbers below.

1) 5,894

4) 56,789

7) 31,203

10) 54,082

2) 2,045

5) 90,123

8) 81,929

11) 67,773

3) 4,904

6) 22, 341

9) 41,203

Learning Task 4: Answer the given questions. Write your answer in your notebook.

	50 000	4 000	200	60	3
--	--------	-------	-----	----	---

1. How many digits are there in 50, 000?
2. What is the place value and value of 3?
3. What is the place value and value of 6?
4. What is the place value and value of 2?
5. What is the place value and value of 4?

Learning Task 5: Complete the table. Give the place value and value of 4 in each of the numerals below. Write your answer in your notebook.

Numbers	Place Value	Value
1. 64 587		
2. 67 840		
3. 43 125		
4. 80 456		
5. 23 384		

E

Learning Task 6: Write the expanded form of the following numbers in your notebook.

- | | |
|----------|------------|
| 1) 8,345 | 6) 67,902 |
| 2) 6,902 | 7) 23,456 |
| 3) 7,781 | 8) 91,034 |
| 4) 8,902 | 9) 32,890 |
| 5) 2,023 | 10) 29,031 |

Learning Task 7: Write the following number words in figures or in symbols. Write your answer in your notebook.

- 1) Five hundred sixty-eight
- 2) Two thousand six hundred forty-five
- 3) Sixty -one thousand five
- 4) Thirty- two thousand sixty -seven
- 5) Seventy -nine thousand three hundred eighty-six
- 6) Twenty -five thousand nineteen

Learning Task 8: Write the following numbers in words in your notebook.

- | | | |
|-----------|-------------|------------|
| 1) 8,980 | 6) 67,924 | 11) 12,350 |
| 2) 4,650 | 7) 79, 346 | 12) 13,345 |
| 3) 6,587 | 8) 12, 458 | 13) 84,023 |
| 4) 77,023 | 9) 43, 506 | 14) 93,234 |
| 5) 81,127 | 10) 10, 012 | 15) 28,327 |

A

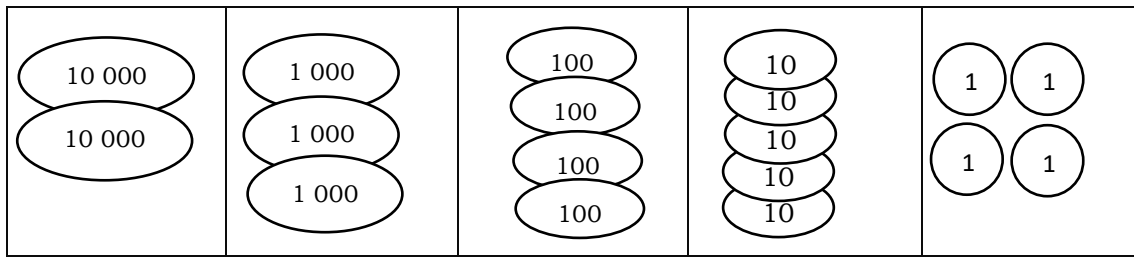
To visualize and represents number up to 100 000, we have to separate or group by ten thousands, one thousands, hundreds, tens and ones of a number. One way to represent the number is using disc and blocks.

The value of a digit is determined by the place value it occupies. The place values of a digit in numbers up to 100 000 is based on the Place Value Chart starting from the right ones, tens, hundreds, thousands, ten thousands and hundred thousands.

In reading a number always begin with the digits in the first period on the left and say the period where the digits are. Then say only the digits in the units period. In writing a number in symbol, the digits are separated by comma or space in groups of 3 called periods starting from the right.

Learning Task 9: Write the letter of the correct answer on your notebook.

1) What number represented by the disc?



- a) 23,545 b) 23,544 c) 23,454 d) 23,514

2) Which of the following is the same as 45,691?

- a) $40,000 + 500 + 60 + 9 + 4$ c) $40,000 + 5000 + 600 + 90 + 4$
 b) $40,000 + 5000 + 60 + 90 + 4$ d) $40,000 + 50000 + 600 + 90 + 4$

3) In 46,853, the digit 6 is in the _____ place.

- a) tens b) hundreds c) thousands d) ten thousands

4) Which of the following has the same value as 64,054?

- a) $60,000 + 4000 + 500 + 4$ c) $60,000 + 40000 + 5000 + 4$
 b) $60,000 + 4000 + 50 + 4$ d) $6,000 + 4,000 + 50 + 4$

5) What is the standard form of eighty-one thousand two hundred seventy - seven?

- a) 81,277 b) 82,177 c) 81,727 d) 81,227

6) What is the place value of the underlined digit in the number 57,892?

- a) tens b) hundreds c. ten thousands d) thousands

7) What is the value of 9 in the 97,234?

- a) 90 b) 900 c) 9,000 d) 90,000

8) 47 thousands 15 hundreds 21 tens is the same as _____

- a) 48,710 b) 48,170 c) 48,107 d) 48,000

9) Using the digits, 6,0,7,8,9, what smallest odd number with 9 in the thousands place can be formed?

- a) 69,087 b) 69,807 c) 69, 780 d) 69,708

10) Using the digits 2,3,4,5,8, what **largest five-digit** number can be formed with 4 in the tens place and no repetition.

- a) 85,342 b) 83,542 c) 85,243 d) 83,542

Rounding-off and Arranging Numbers

Lesson

I

WEEK**2**

To understand how big is the number, we always do compare and arrange them from greatest to least or least to greatest. We also make numbers simpler by rounding off numbers but keeping its value close to what it was. After going through this lesson, you are expected to round off numbers to the nearest thousand and ten thousand and order numbers up to 100,000 in increasing and decreasing order.

Learning Task 1: Select the number which are not arranged in the required order.

1.) Least to Greatest

2, 560	4 456	3, 654	7, 468
--------	-------	--------	--------

2.) Greatest to Least

8, 504	780	2,348	1, 468
--------	-----	-------	--------

3.) Least to Greatest

7,214	7, 589	7,700	7,574
-------	--------	-------	-------

D

When we compare bigger numbers, we compare the digits starting from the left. The greater the value of the digit, the greater is the value of the number. To order numbers from least to greatest, we will find first, the least number and then the greatest and vice versa. After doing that, we compare the remaining numbers. Look at the example below.

Example: Arrange **34,821, 33,952 35,309,**

Remember :

Solution:

3	4, 8	2	1
3	3, 9	5	2
3	5, 3	0	9

→ same number

→ $5 > 4$ and 3 , therefore 35,309 is the greatest number.

1) Look the first digit of the number from the left.
If all the numbers are the same proceed to the next digits.

2) Do the same procedure until you find which number is the greatest or the least.

3) Then arrange the numbers according to what is ordered.

Therefore, to arrange the numbers from greatest to least we have;

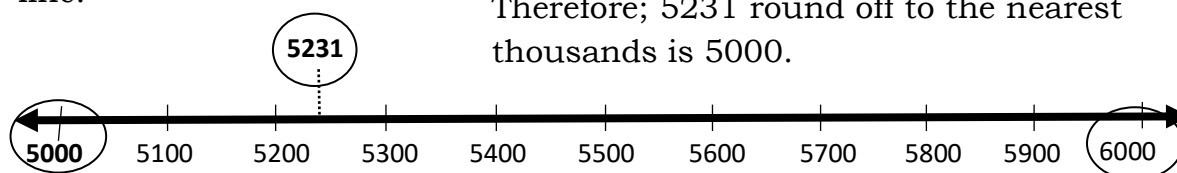
35,309, 34,821, 33,952

PIVOT 4A CALABARZON

When we count, measure, and calculate, we sometimes use rounding off to give us an estimation and approximation of the actual value or close value. Look at some example on how to round off numbers.

Example: The school enrollment of 5,231 can be rounded off to the nearest thousand.

5,231 is near to 5,000 than 6,000 as shown below in the number line.



The following are the steps on how to round off numbers to a given place value. Observe when to be rounded up and rounded down.

- Look at the value of the digit to the right of the digits to be rounded off.
- If the digit on the right is equal to or greater than 5, increase the digit by 1. if the digit is less than 5, retain the digit as it is.
- Then replace every digit to its right zeroes.

Example 1: Round off the number, 23,945 to the **nearest thousands**

23 945 - is rounded up to **24,900** ← **Round Up**

↓ greater than 5 ↑ Digit 9, 4 and 5 is replaced by 0

→ changed →

Answer: 23,945 rounded to the **nearest thousands** is **24,900**

Example 1: Round off the number, 23,945 to the **nearest ten thousands**

23 945 - is rounded up to **23,000** ← **Rounded down**

↓ Less than 5 ↑ Digit 3, 9, 4 and 5 is replaced by 0

→ Retained →

Answer: 23,945 rounded to the **nearest ten thousands** is **23,00**

E

Learning Task 2: Arrange the numbers from greatest to least. Write your answer in your notebook.

- | | | | | | |
|------------|--------|--------|---------|---------|-------|
| 1. 346, | 476, | 556, | _____ , | _____ , | _____ |
| 2. 865, | 875, | 864, | _____ , | _____ , | _____ |
| 3. 1,243, | 7,589, | 1,240, | _____ , | _____ , | _____ |
| 4. 13,645, | 13,657 | 13,675 | _____ , | _____ , | _____ |
| 5. 66,456, | 66,654 | 66,546 | _____ , | _____ , | _____ |

Learning Task 3: Arrange the following sets of numbers in **increasing order**. Write your answer in your notebook.

- | | | | | |
|------------|--------|--------|--------|--------|
| 1) 32, 456 | 32 983 | 32 532 | 32 124 | 32 934 |
| 2) 62 345 | 62 398 | 62 312 | 62 279 | 62 387 |
| 3) 89 923 | 89 246 | 89 124 | 89 534 | 89 345 |
| 4) 19 432 | 19 312 | 19 910 | 19 216 | 19 087 |
| 5) 31 890 | 31 821 | 31 839 | 31 876 | 31 861 |

Learning Task 4: Arrange the following sets of numbers in **decreasing order**. Write your answer in your notebook.

- | | | | |
|-----------|--------|--------|--------|
| 1) 58 204 | 58 042 | 58 240 | 58 024 |
| 2) 10 809 | 10 098 | 10 089 | 10 908 |
| 3) 85 307 | 85 703 | 85 073 | 85 370 |
| 4) 98 705 | 98 507 | 98 570 | 98 057 |
| 5) 41 018 | 41 810 | 41 108 | 41 081 |

Learning Task 5: Select the number which is not arranged in the required order.

1.) Increasing Order

22, 560	27,456	23, 654	24, 468
---------	--------	---------	---------

2.) Increasing Order

54, 670	54,456	54, 564	54, 654
---------	--------	---------	---------

3.) Decreasing Order

82, 568	82, 557	82, 546	82, 595
---------	---------	---------	---------

4.) Decreasing Order

52, 568	82, 557	72, 546	62, 595
---------	---------	---------	---------

5.) Increasing Order

44, 475	44,486	44, 490	44, 454
---------	--------	---------	---------

Learning Task 6 Round the following numbers to the nearest tens and hundreds. Write your answer in your notebook.

Number	Round to the Nearest	
	Thousands	Ten Thousands
1) 57 342		
2) 76 564		
3) 95 634		
4) 85 756		
5) 63 526		

Learning Task 7: Round off the actual price and write the figures on the appropriate column. Write your answer in your notebook.

Item	Actual Price	Thousands	Ten Thousands
Television	₱ 12,395		
Cabinet	₱ 17,575		
Refrigerator	₱ 28,989		
Sala Set	₱ 15,695		
Dining Set	₱ 44,750		

Learning Task 8: Round off the following underlined digit to the nearest place value.

1) 23,675

6) 66,072

2) 25,976

7) 91,731

3) 76,901

8) 45,395

4) 60,952

9) 56,466

5) 30,943

10) 38,460

A

When you are comparing numbers, always begin from the digits in the highest place value. If the digits are the same, proceed to the next digit then compare.

To arrange the number in increasing or decreasing order, compare two numbers at a time. Do the same procedure with the other numbers to be arranged. Then arrange the numbers according to what is ordered.

To round off a number, underline the digit to be rounded off; If the digit on the right is equal to or greater than 5, increase the digit by 1. If the digit is less than 5, retain the digit as it is. Replace all the digits on its right with zeroes.

PIVOT 4A CALABARZON

Learning Task 9: Write the letter of the correct answer on your notebook.

- 1) Which of the following numbers is the greatest number?
a) 23,675 b) 66,072 c) 25,976 d) 91,731
- 2) Which of the following number is the least?
a) 76,901 b) 45,395 c) 60,952 d) 56,466
- 3) Which of number from the set of numbers does not belong in order?

20,943	27,460	28,901	2,965
--------	--------	--------	-------

- a) 27,460 b) 2,965 c. 20,943 d. 28,901

- 4) Which of number from the set of numbers does not belong in the order?

91,243	91,951	91,941	91,935
--------	--------	--------	--------

- a) 91,243 b) 91,951 c. 91,941 d. 91,935

- 5) What is 47,652 rounded to the nearest ten thousands ?
a) 40,000 b) 48,000 c. 50,000 d. 55,000
- 6) 13,678 is between which two numbers?
a) 13,000 and 14,000 c) 13,500 and 14,500
b) 12,000 and 13,000 d) 13,600 and 14,600
- 7) About how many audience come in the concert if the recorded is 41,425?
A) 40,000 b) 44,000 c) 45,000 d)50,000
- 8) 83,234 is closer to which ten thousand number?
A) 80,000 b) 85,000 c) 86,000 d) 90,000
- 9) The number 60,000 is rounded to the nearest _____
A) hundreds c) thousands
B) tens d) ten thousands
- 10) I am a 4 digit number. I am 5000 rounded to the nearest thousands. I am odd number. My tens digit is even. What number I am?
A) 4871 b) 4952 c) 5295 d) 4963

Products of 3 Digit Numbers by 2 Digit

Lesson

I

After going through this lesson, you are expected to multiply numbers up to three digits by numbers up to two digits with or without in various forms and contexts.

Learning Task 1: Find the product mentally. Write your answer in your notebook.

1) 12

$$\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$$

2) 23

$$\begin{array}{r} 23 \\ \times 3 \\ \hline \end{array}$$

3) 17

$$\begin{array}{r} 17 \\ \times 4 \\ \hline \end{array}$$

4) 13

$$\begin{array}{r} 13 \\ \times 7 \\ \hline \end{array}$$

5) 42

$$\begin{array}{r} 42 \\ \times 8 \\ \hline \end{array}$$

6) 233

$$\begin{array}{r} 233 \\ \times 3 \\ \hline \end{array}$$

7) 132

$$\begin{array}{r} 132 \\ \times 3 \\ \hline \end{array}$$

8) 321

$$\begin{array}{r} 321 \\ \times 2 \\ \hline \end{array}$$

9) 311

$$\begin{array}{r} 311 \\ \times 3 \\ \hline \end{array}$$

10) 322

$$\begin{array}{r} 322 \\ \times 4 \\ \hline \end{array}$$

D

Learning Task 1: Let's try to deepen your understanding of this lesson by reading and analyzing the problem carefully. Answer the given questions in your notebook.

Mr. Covid and his co-workers can deliver 231 coconuts in a day.
How many coconuts can they deliver in 23 days?

- 1) How many coconuts can Mr. Covid and his co-workers deliver in a day?
- 2) What is asked in the problem?
- 3) Solve the problem?

Mr. Ben sold 43 boxes of buttons. If each box contained 153 buttons, how many buttons did he sell?

$$\begin{array}{r} 153 \\ \times 43 \\ \hline 459 \end{array}$$

$$\begin{array}{r} 153 \\ \times 43 \\ \hline 459 \\ 412 \end{array}$$

First Step

First thing to do is multiply by 3, which is in the ones place of 43, by each one of the digits of the top factor from right to the left. Place the result 459 on the line below.

Second Step

Multiply the digit in the tens place of the bottom factors 43, by the top factor 153. The result 412 will be written under 459 but moved one place to the left.

PIVOT 4A CALABARZON

$$\begin{array}{r}
 153 \\
 \times 43 \\
 \hline
 429 \\
 412 \\
 \hline
 4579
 \end{array}$$



Third Step
Add all the products

So the answer or product is 4, 579 buttons

E

Learning Task 4: Find the product. Write your answer on you notebook.

1.
$$\begin{array}{r} 315 \\ \times 24 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 516 \\ \times 34 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 917 \\ \times 25 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 745 \\ \times 16 \\ \hline \end{array}$$

+ _____

+ _____

+ _____

+ _____

A

To find the products of 3-digit numbers by 2-digit numbers, we have to multiply all the digits in the multiplicand from right to left by each digit in the multiplier. Add the partial products to get the final product.

Learning Task 4: Find the product. Write your answer on you notebook.

1.
$$\begin{array}{r} 314 \\ \times 23 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 514 \\ \times 33 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 913 \\ \times 23 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 743 \\ \times 14 \\ \hline \end{array}$$

+

+

+

+

Learning Task 5: Solve the given problems. Write your answer in your notebook.

1. Mr. Remulla has a coconut plantation. There are 353 coconut trees in a row. If there are 33 rows, how many coconut trees are there in all?
2. 3. Maine spends Php 800.00 a week. How much does she spend in five

Estimation of Products for 3 to 4 Digit Numbers by 2 to 3 Digit Numbers

I

Lesson

After going through this lesson, you are expected to estimate the products of 3-to 4-digit numbers by 2-to 3-digit numbers with reasonable results.

Learning Task 1: Round off the following to the nearest underlined digit.

1. 346 2. 28 3. 454 4. 892 5. 683 6. 743

D

Learning Task 2: Estimate the following products by rounding the factors to its highest place value before multiplying. Write your answer in your notebook. The first one is done for you.

$$\begin{array}{r} \text{Ex: } 63 \rightarrow 30 \\ \times 45 \rightarrow 50 \\ \hline 1,500 \end{array}$$

1. $\begin{array}{r} 63 \\ \times 18 \\ \hline \end{array}$ 2. $\begin{array}{r} 13 \\ \times 25 \\ \hline \end{array}$ 3. $\begin{array}{r} 15 \\ \times 12 \\ \hline \end{array}$ 4. $\begin{array}{r} 63 \\ \times 22 \\ \hline \end{array}$ 5. $\begin{array}{r} 25 \\ \times 32 \\ \hline \end{array}$

Read the problem below and try to understand how you will give the estimation

A bakery sells 349 pieces pande coco a day. About how many pande coco bread can the bakery shop sell in 25 days?

$$\begin{array}{r} \text{Ex: } 349 \rightarrow 300 \\ \times 25 \rightarrow 30 \\ \hline 9,000 \end{array}$$

“About” is the word clue in the problem. This means that you are not going to find the exact product or answer. You will just get the estimated product. To estimate the total number of pande coco bread for 25 days, you will follow the following steps below:

1. Round off both number or factors to the highest place value
2. Multiply the rounded off or just multiply the whole number and write the number of zeroes in both factors.

E

Learning Task 4: Find the estimated product.

$$\begin{array}{r} 1. \quad 346 \\ \times \quad 45 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 486 \\ \times \quad 84 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 575 \\ \times \quad 346 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 246 \\ \times \quad 57 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 456 \\ \times \quad 14 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 265 \\ \times \quad 336 \\ \hline \end{array}$$

A

To estimate products, round off both factors to the greatest/highest place value, then multiply the rounded factors.

Learning Task 4: Look at the table below. Write the estimated amount of each fruit and answer the questions below on your notebook.

Fruits	Quantity	Price per Piece	Estimated Product
Pineapple	165	₱ 117	
Avocado	781	₱ 37	
Papaya	89	₱ 73	
Jackfruit	390	₱ 275	
Dragon fruit	639	₱ 175	

- How much does 565 pineapples cost? _____
- How much does 89 papayas cost? _____
- How much does 639 dragon fruits cost? _____
- How much does 789 avocados cost? _____
- How much does 390 jackfruits cost? _____

Multiplying Mentally 2 Digit Numbers by 1 to 2 Digit Numbers with Products up to 200

Lesson

I

After going through this module, you are expected to multiply mentally 2-digit by 1-2 digit numbers with products up to 200 including money, mathematical problems and real-life situations.

Learning Task1: Mentally calculate the products of the items below. Write your answer on your notebook as fast as you can.

$$\begin{array}{r} 1) \ 64 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \ 86 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \ 15 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4) \ 37 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 5) \ 54 \\ \times 10 \\ \hline \end{array}$$

D

Learning Task 2: Read and solve the problems mentally. Write your answer in your notebook.

- 1.) There are 17 pencils in every pencil holder. How many pencils are there in 3 pencil holder?



- 2.) There are forty Php5-coins in a box. What is the total value of the coins in the box?



- 3.) A pile contains 15 books. How many books are there in 10 piles?



There are 25 baskets in the table. Each basket contains 6 mangoes. How many mangoes are there?

In multiplication of 2 digit by 1 digit mentally, you may use the expanded form to find the product easily.

$$\begin{array}{r} \text{Ex: } 25 \\ \times 6 \\ \hline 150 \end{array} \rightarrow \begin{array}{r} 20 + 5 \\ \times 6 \\ \hline 120 + 30 = 150 \end{array}$$



There are 150 mangoes



E

Learning Task No. 3 Try to multiply the following mentally. Write your answer in your notebook

$$\begin{array}{l} 1. \quad \begin{array}{r} 48 \\ \times 2 \\ \hline \end{array} \quad 2. \quad \begin{array}{r} 14 \\ \times 5 \\ \hline \end{array} \quad 3. \quad \begin{array}{r} 33 \\ \times 6 \\ \hline \end{array} \quad 4. \quad \begin{array}{r} 18 \\ \times 3 \\ \hline \end{array} \end{array}$$

A

Mental computation is very useful in your everyday living. Being able to compute mentally can save your time. It is easy to multiply number if one factor has a single digit and regrouping is not involved in the process. You can easily find the product for as long as you know the basic multiplication rules.

Learning Task 4: Answer the given problems below. Ask you parents to use a stopwatch while you are solving the given questions mentally.

1. There are 38 rows of chairs in the covered court. If there are 13 chairs in each row. How many chairs are there in all?
2. There are 18 baskets of pineapple in the table. Each basket contains 3 pineapple. How many pineapples are there?
3. How much will it cost if 10 pieces of bread sold at ₱23 per plastic?
4. Ana shared her mangoes with her 13 friends. If each of her friend received 10 mangoes, how many mangoes did Ana have in all?
5. A box contains 15 pieces of chalks. The Principal bought 13 boxes. How many pieces of chalks were bought in all?

Solving Problems involving Multiplication of Whole Numbers

Lesson

I

After going through this module, you are expected to solve routine and word problems involving multiplication of whole numbers including money using appropriate problem-solving strategies .

Learning Task No. 1. Read and analyze the problem below, answer the following questions.

Shane made 80 Sampaguita garlands. Each garland costs Php15.00. If she sold all the Sampaguita garlands, how much will she earn for the garlands?

a. What is asked?	
b. What are the given facts?	
c. What operation will be used?	
d. Write the number sentence.	

D

Read and analyze the problem.

Jack bought 8 dozens of eggs from the grocery store to bake some pancakes. He plans to bake pancakes over 5 days. How many eggs did Jack buy?

To solve the problem use the following steps.

Understand:

- What is asked in the problem?
Number of eggs bought by Jack.
- What are the given facts?
8 dozens = $12 \times 8 = 96$
5 days

Plan:

- What is the operation to be used?
Multiplication
- What is the number sentence
 $(12 \times 8) \times 5 = N$

Solve:

- Use the operation to solve the problem.
 $(12 \times 8) \times 5 = N$
 $96 \times 5 = 480$

Write the complete answer

There are 480 eggs

Check and Look back:

$480 \div 5 = 96$
 $96 \div 8 = 12$

E

Learning Task 2: Solve the problem using the steps on solving word problem. Write your answer on your notebook.

Aldrin bought 12 boxes of biscuits. Each box contained 125 pieces of biscuits. How many biscuits does he have?

A

To solve **routine problems** involving multiplication of whole numbers including money, using appropriate strategies and tools follow these steps:

A. Understand

1. What is asked in the problem?
2. What are the given facts?

B. Plan

3. What is the operation to be used?
4. What is the number sentence?

C. Solve

5. Use the operation to solve

D. Check and Look back

6. Write the correct answer

Non-routine problems can be solved without using a standard procedure. They can be solved by drawing a picture, using a number line, acting out, making a table, and other techniques.

Learning Task 3: Write the letter of the correct answer in your notebook.

1) The membership fee of Math Club is ₱25. What is the total amount paid by 1,252 members?

- A. ₱ 31,250 B. ₱ 31,252 C. ₱ 31,230

2) There are 85 cans of milk in a box sold at ₱ 13 each can. What is asked in the problem?

- A. Number of cans of milk C. Amount of 85 cans of milk
B. Amount of 85 can of sardines

3) Penpen supplies 10 dozens of eggs a day to a store. How many eggs does he supply to the store in 2 weeks ?

- A. 240 eggs B. 20 eggs C. 200 eggs

4) A fruit vendor ordered 7 boxes of oranges. Each box contained 15 oranges. How many boxes of oranges were ordered by the vendor? What is asked in the problem?

- A. Number of fruit vendors C. Number of boxes

Solving Multistep Routine and Nonroutine Word Problems Involving Multiplication and Addition or Subtraction

WEEK

5

I

Lesson

After going through this lesson, you are expected to solve multi-step routine and non-routine problems involving multiplication, addition or subtraction using appropriate problem solving strategies and tools. Follow the steps accurately in solving word problem.

Learning Task 1. Read and analyze the problem below. Answer the given question in your notebook.

Ruben just arrived from abroad. He brought with him 4 boxes of assorted chocolates and candies with different weighs for his friend and family. What is the average weight of the 4 boxes if their weight are 18kg, 9kg, 13kg, and 16 kg?

1. What is asked in the problem?
2. What are the given?
3. What is the operation to be used?
4. What is the number sentence?
5. Solve

D

Read and analyze the problem. Look at the steps on how to solve this problem.

Adrian bought 2 boxes of marbles. Each box has 135 marbles. If he gave 56 marbles to his brothers, how many marbles were left?

1. What is asked?
Marbles left to Adrian
2. What are given?
2 boxes of with 135 marbles per box
56 marbles were given to the brother
3. What is the operation?
Multiplication , subtraction
4. What is the number sentence?
 $(2 \times 135) - 56 = 56 = N$
5. Solve

$$\begin{array}{r} \text{Step 1:} \quad 135 \\ \times \quad 2 \\ \hline 270 \end{array}$$

$$\begin{array}{r} \text{Step 2:} \quad 270 \\ - \quad 56 \\ \hline 214 \end{array}$$

6. There are 214 marbles left with Adrian

E

Learning Task 2: Apply the steps in solving word problems. Write your answer in your notebook.

1. Mr. and Mrs. Flores sold 3 275 roses last Valentine's Day. How much is their total sales if each rose cost Php50?
2. There are 5 bundles of popsicle sticks. If each bundle contains 5 dozens, how many popsicle sticks are there in all?
3. The street lights are 25 meters apart. If there are 15 street lights, what is the distance from the first street light to the last street light?

A

To solve multistep routine and non-routine problems involving multiplication, addition, or subtraction using appropriate problem solving strategies and tools; we are guided by the following steps. Understand, Plan, Solve, Check and Look Back.

Learning Task 3. Read, analyze and answer the following problems. Show your solutions in your notebook. And choose the letter of the correct answer.

1. Joy is going to buy food for a class reunion. There are 45 guests and each guest will eat 250 grams of chicken. If there are already 8 750 grams of chicken in the table. How many more grams of chicken should she buy?
A. 2000 B. 2500 C. 11, 250 D. 1250
2. A long distance telephone call costs Php21 for the first 3 minutes, plus P7 for each additional minute. What is the cost of a 10-minute call?
A. ₱49 B. ₱ 53 C. ₱ 102 D. ₱ 70
3. A new building has 4 455 bricks when finished. If the builder allows 120 extra bricks for breakage, how many bricks will he need to build 7 buildings?
A. 2000 B. 2500 C. 11, 250 D. 32 025
4. Rose can finish 18 pieces of embroidery in 4 days. Andrea can embroider 22 pieces in 2 days. How many more pieces of embroidery can Andrea make than Rose in 4 days?
A. 72 B. 44 C. 88 D. 26
5. Nelson can plant 143 pechay seedlings in 8 plots in a day. Alex can plant 96 pechay seedlings in 13 plots in a day. How many more can Alex plant than Nelson?
A. 1144 B. 1248 C. 104 D. 140

Division of 3 to 4 Digit Numbers by 1 to 2 Digit Numbers

Lesson

WEEK

6

I

This lesson will help you demonstrate understanding of division of whole numbers without remainders [including money]. After going through this lesson, you are expected to divide 3-to 4-digit numbers by 1-to 2-digit numbers with and without remainders.

Learning Task 1: Read each item carefully. Write the correct answer in your notebook.

- _____ 1. The quotient is 68. The divisor is 9. Give the dividend.
- _____ 2. How many 4's are there in 130?
- _____ 3. What will be the remainder if 261 is divided by 5?
- _____ 4. In $625 \div 10$, what is the remainder?
- _____ 5. The quotient is 30, the dividend is 900, what is the divisor?

D

Read and analyze the example problem. Observe the steps on how to solve the problem.

Rosa collected 875 seashells to make necklaces. She used 70 seashells for each necklace.

To find the answer, you must divide 875 by 70

Follow the following steps:

$$\begin{array}{r} 70 \overline{) 875} \\ \underline{12 \text{ r. } 35} \\ 70 \overline{) 875} \\ \underline{- 70} \\ 175 \\ \underline{- 140} \\ 35 \end{array}$$

1. Take the first number at the left of the dividend.
2. If the first digit of the dividend is less than the divisor, take the first two digits.
3. Proceed in the division process, multiplication, subtract and bring down.
4. Repeat the same procedure up to the last digit in the dividend.
5. If the quotient is not exact, it means that there is a remainder. Write the remainder beside the quotient

The final answer is 12 r. 35.

E

Learning Task 3. Provide the correct answer inside the colored boxes. Write your answer in your notebook.

Dividend	Divisor	Quotient
4 004	28	
3 115		89
6 592	32	
2124		12
3920	16	

A

Remainder is a left over digit after dividing digit by another digit to produce quotient.

In dividing 3- to 4-digit numbers by 1- to 2-digit divisors without and with remainder, the follow these steps: (1) Take the first number on the left of the dividend. If the first digit of the dividend is less than the divisor, take the first two digits. (2) Divide, multiply, subtract and bring down. (3) Repeat the same procedure up to the last digit in the dividend. (4) If the quotient is not exact, it means that there is a remainder, write the remainder beside the quotient.

Learning Task 4: Choose the letter of the best answer. Write your answer in your notebook.

- What will you get if you divide 620 by 20?
a. 21 b. 210 c. 31 d. 310
- What is the quotient of 896 divided by 16?
a. 36 b. 46 c. 56 d. 66
- How many 27 are there in 1215?
a. 35 b. 45 c. 55 d. 65
- Which of the following numbers is **NOT** divisible by 10?
I. 3050 II. 473 III. 5250 IV. 6752
a. I and III b. I and II c. II and III d. II and IV
- If the divisor is 15 and the dividend is 1 565, what is the quotient?
a. 104 b. 104 r.33 c. 104 r.5 d. 105

Dividing 3 to 4 Digit Numbers by 10, 100 or 1000 Without and With Remainder

I

Lesson

After going through this lesson, you are expected to divide 3-to 4-digit numbers by 10, 100 ,or 1000 with and without remainder.

Learning Task 1: Match the division sentence with its answer. Write the letter of the correct answer.

- | | |
|-----------------------|--------|
| 1. $4000 \div 10$ | A. 78 |
| 2. $5000 \div 100$ | B. 50 |
| 3. $4100 \div 10$ | C. 400 |
| 4. $6500 \div 100$ | D. 410 |
| 5. $7800 \div 100$ | E. 24 |
| 6. $24,000 \div 1000$ | F. 65 |

I

Read and analyze the problem. Observe the quotient if the divisor is 10,100 and 1000.

The Boy Scouts of Danao Elementary School initiated the collection of 2318 canned goods to be given to 10 poor families affected by typhoon Leo. How many pieces of canned good should each family receive?

$$2,318 \div 100 = 231$$

Try to observe the digits of the dividend is exactly the same with the first 3 digits of the quotient. Remainder is also the same digit of the last digit of the dividend.

Here is the another example using 100 as division.

$$2,318 \div 100 = 23 \text{ r. } 18$$

The first 2 digits of the dividend is exactly the same first 2 digits of the quotient. Remainder is also the same digits of the last 2 digits of the dividend.

Here is the another example using 1000 as divisor.

$$2,318 \div 1000 = 2 \text{ r. } 318$$

The first digit of the dividend is exactly the same with first digit of the quotient. Remainder is also the same digit of the last 3 digits of the dividend.

The number of the digits in the remainder is based on the number of zeroes in the divisor.

PIVOT 4A CALABARZON

E

Learning Task 2: Find the quotient. Write your answer in your notebook.

	4510	226	3460	
	865	10	784	
	3761	843	5461	

	7561	8423	9360	
	543	100	650	
	6542	4014	3430	

	1234	5678	9000	
	2143	1000	8999	
	3322	6789	7860	

A

In dividing 3 to 4-digit numbers by 10 with remainders, the last digit in the dividend is the remainder while the remaining digits represent the quotient.

In dividing 3 to 4-digit numbers by 100 with remainder, the 2 digits in the dividend is the remainder while the remaining digits represent the quotient.

In dividing 4-digit numbers by 1000 with remainder, the 3 digits in the dividend is the remainder while the remaining digits represent the quotient.

Learning Task 3: Find the quotient.

- 5386 divided by 1000 will give you a remainder of _____.
a. 86 b. 36 c. 386 d. 6
- 650 is equal to how many tens?
a. 600 b. 60 c. 65 d. 0
- Nine thousand five hundred has how many thousands?
a. 8 b. 950 c. 900 d. 9
- There are 9 540 kilos of rice to be distributed among 1000 household due to pandemic COVID 2019. How many kilos of rice will each household receive?
a. 9 kilos each b. 9 grams c. 54 kilos d. 95 kilos
- There are 9020 can goods to be placed equally inside 100 boxes. How many can goods will each box hold?
a. 60 b. 96 c. 90 d. 60

Estimating the Quotient of 3 to 4 Digit Dividends by 1 to 2 Digit Divisors

WEEK

7

I

Lesson

After going through this module, you are expected to estimate the quotient of 3- to 4-digit dividends by 1- to 2-digit divisors and solve for both the estimated quotient and actual quotient.

Learning Task 2: Round off the following numbers to the highest place value.

- 1) 434 _____
- 2) 5658 _____
- 3) 8374 _____
- 4) 361 _____
- 5) 7454 _____

Learning Task 3: Find the quotient. Use the cancellation method.

Ex: $7000 \div 10 = 700 \div 1 = 700$

1. $41\ 000 \div 100 =$
2. $3\ 000 \div 10 =$
3. $20\ 000 \div 100 =$
4. $9\ 000 \div 100 =$
5. $12\ 000 \div 1\ 000 =$

D

Here is the example on how to estimate the quotient. Read the problem and observe how to find the estimated quotient.

A farmer has 31,205 pineapples to pack equally in 48 boxes. About how many pineapple will be in each box?

In estimating the quotient, follow the following steps:

Example: $31\ 205 \div 48 = 650\ r\ 5$

↓

↓

Solution: $30\ 000 \div 50 = N$

$30\ 000 \div 50 = 600$

Round off the dividend and the divisor to their highest place value.

Apply the rules of cancellation for dividing rounded numbers. .

Lastly, compare your estimated quotient to the actual quotient to make sure if the estimated quotient is reasonable.

E

Learning Task 2: Find the estimated quotient.

- 1) $4234 \div 51 =$ _____
- 2) $5658 \div 29 =$ _____
- 3) $248 \div 26 =$ _____
- 4) $6718 \div 81 =$ _____
- 5) $37\,820 \div 58 =$ _____

Learning Task 3: Choose the letter of the best estimate the quotient.

- | | | | | |
|-----------------------|--------|--------|--------|--------|
| 1. $44000 \div 531$ | a) 70 | b) 80 | c) 90 | d) 100 |
| 2. $42430 \div 790$ | a) 50 | b) 60 | c) 70 | d) 80 |
| 3. $47,986 \div 197$ | a) 250 | b) 260 | d) 270 | d) 280 |
| 4. $68,567 \div 210$ | a) 300 | b) 350 | d) 360 | d) 370 |
| 5. $89,100 \div 314$ | a) 350 | b) 340 | d) 320 | d) 300 |
| 6. $24,450 \div 5040$ | a) 4 | b) 5 | d) 6 | d) 7 |

A

In estimating the quotient of 3- to 4- digit dividends by 1- to 2-Digit divisors, do not forget to follow the following steps. First, always use rounded numbers to estimate quotients. Second, round the dividend and the divisor to their highest place value. Third, apply the rules of cancellation for dividing rounded numbers. Lastly, compare your estimated quotient to the actual quotient to make sure if the estimated quotient is reasonable.

Learning Task 4: Solve the given problems. Write your answer in your notebook.

1. Estimate the quotient of 825 divided by 24.
2. A farmer has 3,105 pineapples to pack equally in 34 boxes. About how many pineapple will be in each box?
3. The total sales for calamansi fruit harvested from the EPP garden is ₱3 120.00. If the calamansi is sold at ₱ 21.00 per kilo, how many kilos were sold?

Solving Problems Involving Division of 3 to 4 Digit Numbers by 1 to 2 Digit Numbers

Lesson

I

After going through this lesson, you are expected to solve routine problems and non-routine problems involving division of 3 to 4 digit numbers by 1 to 2 digit numbers [including money] using appropriate problem solving strategies and different steps in problem solving.

Learning Task 1: Answer the following in your notebook.

- _____ 1. The quotient is 6. the divisor is 10. Give the dividend.
- _____ 2. How many 10's are there in 530?
- _____ 3. What will be the quotient if 700 is divided by 100?
- _____ 4. In $8900 \div 10$, What is the answer?
- _____ 5. The quotient is 9, the dividend is 9000, what is the divisor?

I

Read and analyze the problem.

Pepe has 20 dozens of eggs to be placed equally in 5 baskets.
How many eggs will be each basket?

To solve the given problem, follow the following steps.

- 1) What is asked in the problem?
Number of eggs to be placed
2. What are given?
20 dozens = 240 eggs
5 baskets
3. What is the operation to be used?
Division
4. What is the number sentence?
 $240 \div 5 = N$
5. Perform the operation and do the procedure in doing number

$$\begin{array}{r} 48 \\ 5 \overline{) 240} \\ \underline{- 20} \\ 40 \\ \underline{- 40} \\ 0 \end{array}$$

6. There are 48 eggs in the basket.

PIVOT 4A CALABARZON

E

Learning Task 3: Solve the given problem. Write your answer in your notebook.

1. There are 4000 apples to be placed equally in 25 baskets . How many mangoes will be in each basket?
2. After a good harvest, Mr. Celso set aside P 6 336 to be shared equally by his 12 workers. How much will each worker received?
3. Liza bought an appliances for ₱ 6 930 with zero interest payable installments for 6 months. How much should she pay monthly ?
4. Earl paid ₱ 975 for 15 cans of paint. How much was the price of each can of paint?
5. The scout master bought a tent worth Php1840 for the 4 tents to be used in the upcoming camping. How much is the price of each tent?

A

In order to solve routine and non-routine problem, follow these steps: First, know what is asked, what are given. Next, know the operation to be used. Third, write the number sentence. Fourth, write the correct units/ label your answer. Lastly, review and check your an-

Learning Task No. 4: Choose the letter of the correct asnwer. Write your asnwer on your notebook.

1. Mary bought a buy-one take bag. She paid 654. How much did each bag?
A) ₱ 800 b) ₱ 827 c) ₱839 d) ₱842
2. Nancy orders 200 red roses to be placed in 8 big vases. How many roses will each vase have?
A) 10 b) 15 c) 20 d) 25
3. Twelve scouts are asked to make 492 cotton balls for their school clinic. How many cotton balls should each scout make?
A) 44 b) 43 c) 42 d) 41
- 4) The grade for pupils needs 1175 straws to be use in their Math project. If there are 47 pupils. How many straws did each pupils need to correct?
A) 20 b) 25 c) 30 d) 37

Solving Problems Involving Division and Any Other Operations of Whole Numbers

Lesson

WEEK

8

I

First, let us understand the concept of multi-step word problem. In multi-step word problem, there are two or more operations, you must solve them in the correct order to be successful. Since word problems describe a real situation in detail, the question being asked can get lost in all information, especially in multi-step problems. Let's take a deep understanding of this concept by reading and analyzing the problem below.

Learning Task 1: Read and analyze the given problem. Answer the given questions in your notebook.

Leo bought 4 T-shirts and 2 pairs of pants for Php 3 000.00. If the T-shirts cost Php 300.00 each, find the cost of each pair of pants.

- 1) What is asked?
- 2) What are the given?
- 3) What operation will be used?
- 4) What is the hidden question?
5. What is the number sentence?
6. Write the solution:

D

Learning Task 2: Solve the following problem. Write your answer in your notebook.

1. A leaking faucet wastes about 3 liters of water a day. How many liters of water can be saved daily if 500 leaking faucets are repaired?
2. The quotient is 25 and the divisor is 14. The dividend is 353. I am the remainder what number am I?
3. Isaiah had 63 apples. He divided all apples evenly among his 9 friends. How many apples did Isaiah give to each of his friends?
4. Nancy needs 5 oranges to make a glass of orange juice. If Nancy has 250 oranges, how many glasses of orange juice can she make?

E

Learning Task 3: Solve the following. Problems. Write your answer in your notebook.

- 1) Joseph has 48 comic books. He sold one-fourth of his collection to his friend. He brought twice the number of comic books as he has now. How many comic books does he have now?
2. In the library, there are 9 rectangular tables with 8 pupils each and square tables with 4 pupils each. How many square tables are needed so that 100 pupils can read at the same time?

A

1. The steps in solving multi-step routine problems are:
 - a. **Understand**—Know what is asked, what are given.
 - b. **Plan-Know the operation to be used**
Know the hidden questions
Write the number sentence
 - c. **Solve**— Decide the operation to be used to find the answer to the hidden question. Then, solve for the answer - last operation.
 - d. **Check and Look Back**- Review and check your answer.
2. The steps in solving multi-step non-routine problems involving division and any other operation are:
Read and analyze the problem carefully.
Tell what is asked and what are given.
Use strategies like acting out the problem, listing/table method, guess and check, drawing/ making a diagram, using patterns, working backwards to solve it.

Learning Task 4: Let's assess what you have already known about the lesson. Choose the letter of the best answer. Write the chosen letter in your notebook.

1. There were 407 boys and 438 girls who like to join the Independence Day Parade. How many buses will be hired if 65 persons can be accommodated in a bus?
a. 12 b. 13 c. 14 d. 15
2. Six pupils shared 3 baskets of eggplants they harvested. There were 35 eggplants in the first basket, 45 in the second basket, and 22 in the last basket. How many eggplants did each pupil get?
a. 15 b. 16 c. 17 d. 18
3. Jannah has 66 stationery envelopes in her collection. Her pet destroyed half of them last week. This week she brought 17 envelopes more. How many envelopes does she have now?
a. 50 b. 60 c. 30 d. 40
4. Mariecris won 40 chocolate bars at a school fair. Then she gave 4 to each of her friends. She only has 8 chocolates left. How many friends does she have?
a. 5 b. 6 c. 7 d. 8
5. Lorely has weekly allowance of Php 150.00. She donated one-third of it to Bantay Bata Foundation. To earn more money, she applied to wash her parents' car for Php 75.00. How much money does she have now?
a. Php 175.00 c. Php 125.00
b. Php 150.00 d. Php 250.00

Multiplication, Division, Addition,

Subtraction (MDAS)

Lesson

I

After going through this lesson, you are expected to identify the correct procedure in performing series of operations; understand and explain the relationship between the four fundamental operations; and solve series of operations applying Multiplication, Division, Addition, and Subtraction.

There is a simple activity below to test your knowledge about basic operation and what you have learned from your early grades.

Learning Task 2: This activity allows you to perform the four fundamental operations independently. Choose the letter of the correct answer. Write it in your notebook.

- | | | | |
|-----------------------|-------|-------|-------|
| 1. $8 + 96 \div 2$ | a. 56 | b. 57 | c. 58 |
| 2. $42 \div 6 - 3$ | a. 5 | b. 4 | c. 3 |
| 3. $79 - 12 \times 4$ | a. 31 | b. 32 | c. 33 |
| 4. $3 \times 5 - 10$ | a. 3 | b. 4 | c. 5 |
| 5. $42 - 15 \div 5$ | a. 37 | b. 38 | c. 39 |

D

Look at the following operations below. Have you encountered the equation like this? Observe the example below and do the different task after you understand this lesson.

$$\begin{array}{rcl} 2 \times 3 + 20 & \text{Rule 1} & \\ \swarrow \quad \searrow & & \\ 6 + 20 & \text{Rule 2} & \\ \swarrow \quad \searrow & & \\ 26 & & \end{array}$$

$$\begin{array}{rcl} 24 \div 2 + 13 - 16 & \text{Rule 1} & \\ \swarrow \quad \searrow & & \\ 12 + 13 - 16 & \text{Rule 2} & \\ \swarrow \quad \searrow & & \\ 25 - 16 & \text{Rule 2} & \\ \swarrow \quad \searrow & & \\ 9 & & \end{array}$$

To solve the equation, we will use the **MDAS** Rule. **MDAS** refers for the basic operations such as Multiplication, Division, Addition and Subtraction. The rule must be followed to solve the equation like these.

Rule 1: Multiply or divide first in the order as they come from the left to right.

Rule 2: Add or subtract in order as they come from left to right.

E

Learning Task No. 2. Try to solve the following equation.

- 1) $4 + 8 \div 2 - 7 =$ _____
- 2) $12 \times 3 - 4 + 0 =$ _____
- 3) $12 + 13 - 4 \times 5 =$ _____
- 4) $15 - 10 \times 2 + 17 =$ _____
- 5) $20 + 5 \times 4 \div 2 =$ _____

Learning Task No. 3: Solve the following equation. Then compare your answer by writing $<$, $>$ and $=$ in your notebook.

1. $5 + 8 \div 2 - 7$ _____ $26 \div 13 \times 10 - 17$
2. $22 \times 3 - 42 + 20$ _____ $72 \div 2 + 13 - 16$
3. $12 + 13 - 4 \times 5$ _____ $16 \div 4 \times 3 - 7$
4. $45 - 10 \times 2 + 17$ _____ $16 \div 8 \times 9 - 5 + 30$

A

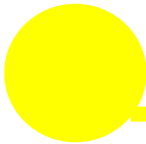
MDAS rule refers for the order of basic operations such as multiplication, division, addition and subtraction.

Rule 1: Multiply or divide first in the order as they come from the left to right.

Rule 2: Add or subtract in order as they come from left to right.

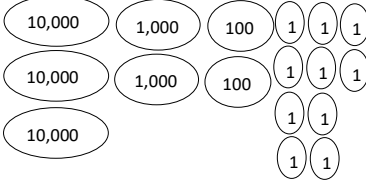
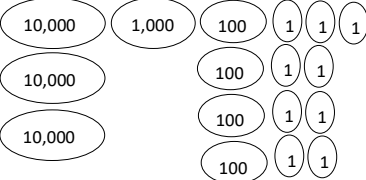
Learning Task 4: Solve the following equation. Then compare your answer by writing $<$, $>$ and $=$ in your notebook.

- 1) $4 + 8 \div 2 - 7 =$ _____
- 2) $12 \times 3 - 4 + 0 =$ _____
- 3) $12 + 13 - 4 \times 5 =$ _____
- 4) $15 - 10 \times 2 + 17 =$ _____
- 5) $20 + 5 \times 4 \div 2 =$ _____
- 6) $26 \div 13 \times 10 =$ _____
- 7) $65 \times 12 + 10 =$ _____
- 8) $16 \div 8 \times 9 - 2 =$ _____
- 9) $10 \times 15 + 8 =$ _____
- 10) $12 \times 3 - 20 =$ _____



Answer Key

WEEK 1

I	D	E	A
1. 1 2. 1 3. 3 4. 5 5. 3 6. 11, 353	1. 33,156 2. 12, 114	1.  2. 	1. 58,085 2. 75,400 3. 90,280 4. 76,355 5. 70,102

WEEK 2

I	D	E	A																								
1. 5 2. Ones 3. Tens 4. hundreds Ten thousands	1. 4 2. 0 3. 4 4. 3,000 5. 30,000 6. 33,000 7. 30,000 + 3,000 + 500 + 4 8. Thirty-three thousand, five hundred four	1. 9,000 2. 50,000 3. 88 4. 10 5. 300 <table><tr><th>Place Value</th><th>Value</th></tr><tr><td>Hundreds</td><td>300</td></tr><tr><td>Tens</td><td>30</td></tr><tr><td>Ones</td><td>3</td></tr><tr><td>Thousands</td><td>3,000</td></tr><tr><td>Ten thousands</td><td>30,000</td></tr></table>	Place Value	Value	Hundreds	300	Tens	30	Ones	3	Thousands	3,000	Ten thousands	30,000	<table><tr><th>Place Value</th><th>Value</th></tr><tr><td>thousands</td><td>4,000</td></tr><tr><td>Tens</td><td>40</td></tr><tr><td>Ten thousands</td><td>40,000</td></tr><tr><td>hundreds</td><td>400</td></tr><tr><td>one</td><td>4</td></tr></table>	Place Value	Value	thousands	4,000	Tens	40	Ten thousands	40,000	hundreds	400	one	4
Place Value	Value																										
Hundreds	300																										
Tens	30																										
Ones	3																										
Thousands	3,000																										
Ten thousands	30,000																										
Place Value	Value																										
thousands	4,000																										
Tens	40																										
Ten thousands	40,000																										
hundreds	400																										
one	4																										

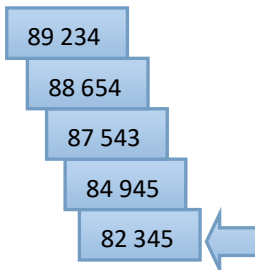
WEEK 3

I	D	E	A
1. 568 2. 2,645 3. 61,005 4. 32,067 5. 79,386 6. 25,019	1. Eighteen thousand, nine hundred eighty. 2. Twenty-four thousand, six hundred fifty. 3. Fifty-six thousand, eighty-seven. 4. Seven-seven thousand, twenty-three. 5. Eighty-one thousand, one hundred twenty-seven. 6. Sixty-seven thousand, nine hundred twenty-four. 7. Seventy-nine thousand, three hundred forty-six. 8. Twelve thousand, four hundred fifty-eight.	1. < 2. > 3. > 4. > 5. =	1. C 2. D 3. A 4. E 5. B

WEEK 4

I		D		E	A	
Nearest Tens	Nearest Hundreds	Round to the Nearest		1. 3,000 2. 70,000 3. 2,000 4. ₱100,000 5. ₱ 7,000	Thousands	Ten Thousands
60	600	Thousands	Ten Thousands		₱ 13,000	₱ 10,000
70	300	7 000	60 000		₱ 8,000	₱ 7,000
70	700	7 000	80 000		₱ 9,000	₱ 8,000
		6 000	100 000		₱ 16,000	₱ 20,000
		6 000	90 000		₱ 14,000	₱ 10,000
		4 000	60 000			

WEEK 5

I	D	E	A
1. 3,654 2. 780 3. 7,574	1. 556, 476, 346 2. 875, 865, 864 3. 7, 589, 1,243, 1,240 1. bottle cups 2. 3,500 3. 2,865 4. Peter 5. Ruben	1. 32 124, 32 456, 32 532, 32 934, 32 983 2. 62 279, 62 312, 62 345, 62 387, 62 398 3. 89 124, 89 246, 89 345, 89 534, 89 923 4. 19 087, 19 216, 19 312, 19 432, 19 910 5. 31 821, 31 839, 31 861, 31 876, 31 890 1. 58 240, 58 204, 58 042, 58 024 2. 10 908, 10 809, 10 098, 10 089 3. 85 703, 85 370, 85 307, 85 073 4. 98 705, 98 570, 98 507, 98 057 5. 41 810, 41 108, 41 081, 41 018	

Answer Key

WEEK 6

I	D	E	A
1. 60 2. 69 3. 68 4. 91 5. 336 6. 669 7. 396 8. 642 9. 933 10. 1 288	1. 231 2. The number of coconuts delivered in 23 days. 3. Multiply	1. 7 560 2. 17 544 3. 22 925 4. 11 920	1. 7 222 2. 16 962 3. 20 999 4. 10 402 1. 11 649 2. 16 000

WEEK 7

I	D	E	A
1. 300 2. 30 3. 500 4. 900 5. 680 6. 740	1. 1 200 2. 300 3. 200 4. 1 200 5. 900	1. 15 000 2. 40 000 3. 180 000 4. 12 000 5. 5 000 6. 90 000	1. 20 000 2. 32 000 3. 6 300 4. 120 000 5. 120 000

WEEK 8

I	D	E	A
1. 640 2. 172 3. 90 4. 370 5. 540	1. 102 2. 2 3. 160	1. 96 2. 70 3. 198 4. 54	1. 494 2. 54 3. 230 4. 130 5. 195

WEEK 9

I	D	E	A
A. The amount earned for the garland B. 80 sampaguita 15 each garland C. Multiplication D. $80 \times 15 = N$		1. Number of biscuits. 2. 10 boxes 25 pieces each box 3. multiplication 4. $10 \times 25 = N$ 5. 250	1. B 2. B 3. A 4. B


WEEK 10

I	D	E	A
1. 8 250 2. 10 500 3. 625 4. 275 kg 5. 350 kg		1. 163 750 2. 300 3. 375 m	1. B 2. D 3. D 4. D 5. C

WEEK 11

I	D	E	A
1. 612 2. 32 3. 1 4. 5 5. 30	1. 12 2. 12 3. 35 4. remainder	1. 143 2. 35 3. 206 4. 177 5. 245	1. C 2. C 3. B 4. D 5. C

WEEK 12

I	D	E	A
1. 612 2. 32 3. 1 4. 5 5. 30			1. C 2. C 3. D 4. A 5. C

WEEK 13

I	D	E	A
1. 400 2. 6000 3. 8000 4. 400 5. 7000	1. 410 2. 300 3. 200 4. 90 5. 12	1. 200 2. 20 3. 10 4. 600	1. 40 2. 100 3. 150

WEEK 14

I	D	E	A
1. 60 2. 53 3. 7 4. 890 5. 1000		1. 16 2. 528 3. 1155 4. 65 5. 460	1. B 2. D 3. D 4. B

WEEK 15

I	D	E	A
1. The amount of each pair of pants. 2. 3000 for 4 T-shirt & 2 pair of pants 300 each T-shirt 3. Multiplication, subtraction, & division 4. The amount of pair of pants. 5. $3000 - (300 \times 4) \div 2 = N$ 6. 900	1. 1 500 2. 3 3. 7 4. 50 5. 46	1. 36 2. 7 3. 6 cm, 12 cm	1. B 2. C 3. A 4. 8 5. A

WEEK 16

I	D	E	A
1. Materials to make earrings 2. Answer may vary 3. Answer may vary 4. Answer may vary 5. $(7 \times 5) + (3 \times 2) - 20 = N$	1. A 2. B 3. A 4. C 5. C	1. 60 2. 185 1. 24 2. 29	1. 24 2. 1 3. 30 4. 8 5. 18



For inquiries or feedback, please write or call:

Department of Education Region 4A CALABARZON

Office Address: Gate 2 Karangalan Village, Cainta, Rizal

Landline: 02-8682-5773, local 420/421

Email Address: lrmd.calabarzon@deped.gov.ph

