

# Mathematics 4

## Microlearning Module

### QUARTER 2 – Module 4

*Dividing 2 to 4 digit Numbers by 1 and 2 digit Numbers with and without Regrouping*



Mathematics 4

Microlearning Module (MLM)

Quarter 2 – Module 4: Dividing 2 -to 4- digit Numbers by 1 and 2- digit Numbers With  
and Without Regrouping

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## MICROLEARNING MODULE

Name: \_\_\_\_\_ Grade & Sec: \_\_\_\_\_ Score: \_\_\_\_\_

Subject: Mathematics 4 Quarter: 2 MLM No.: 4

Teacher: \_\_\_\_\_

Competency: Divide two numbers with and without regrouping

a. 3 to 4 digit numbers by 1 digit numbers

b. 2 to 3 digit numbers by 2 digit numbers

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### A. Look Back!

Read and solve each problem. Write your complete answer in the blank.

1. Aleng Nena's sari-sari store earns P9 258 in a week. How much does it earn in 10 weeks?

a. What is asked in the problem?

\_\_\_\_\_

b. What are the given facts?

\_\_\_\_\_

c. What operation is to be used?

\_\_\_\_\_

d. What is the correct answer?

\_\_\_\_\_

e. Show your solution.

\_\_\_\_\_

### B. What's New?

Complete the table.

	Dividend	Divisor	Quotient
1	12	4	
2	25		5
3	18	2	
4		9	3
5	45		5

### C. What Is It?

Look at this.

Mrs. Dela Rosa is a vendor. She earns P6 875 in 5 days. On average, how much does she earn in 5 days?

You will divide to find the answer.

$$\begin{array}{c} \text{dividend} \nearrow \text{P } 6\,875 \div 5 = \underline{\hspace{2cm}} \nwarrow \text{quotient} \\ \text{divisor} \nearrow \end{array}$$

The **dividend** is the number to be divided into equal groups.

The **divisor** is the number that divides the dividend.

The **quotient** is the answer in division.

The **remainder** is the number that is left when one number is divided by another number.

To divide, we follow these steps:

**Step 1.** Divide the thousands.

$$\begin{array}{r} 1 \\ 5 \overline{) 6\,875} \\ \underline{- 5} \phantom{00} \\ 18 \phantom{00} \end{array} \quad \begin{array}{l} \leftarrow 1 \times 5 \\ \downarrow \end{array}$$

- $6 \div 5 = 1$
- Multiply:  $1 \times 5 = 5$
- Subtract:  $6 - 5 = 1$
- Bring down 8 and regroup with 1 thousand to get 18 hundreds.

**Step 2.** Divide 28 hundreds.

$$\begin{array}{r} 13 \\ 5 \overline{) 6\,875} \\ \underline{- 5} \phantom{00} \\ 18 \phantom{00} \\ \underline{- 15} \phantom{00} \\ 37 \phantom{00} \end{array} \quad \begin{array}{l} \leftarrow 3 \times 5 \\ \downarrow \end{array}$$

- $18 \div 5 = 3$
- Multiply:  $3 \times 5 = 15$
- Subtract:  $18 - 15 = 3$
- Bring down 7 and regroup with 3 hundreds to get 37 tens.

**Step 3.** Divide 37 tens.

$$\begin{array}{r} 137 \\ 5 \overline{) 6\,875} \\ \underline{- 5} \phantom{00} \\ 18 \phantom{00} \\ \underline{- 15} \phantom{00} \\ 37 \phantom{00} \\ \underline{- 35} \phantom{00} \\ 25 \phantom{00} \end{array} \quad \begin{array}{l} \leftarrow 7 \times 5 \\ \downarrow \end{array}$$

- $37 \div 5 = 7$
- Multiply:  $7 \times 5 = 35$
- Subtract:  $37 - 35 = 2$
- Bring down 5 and regroup with 2 tens to get 25 tens.

**Step 4.** Divide 25 ones.

$$\begin{array}{r}
 1\ 375 \\
 5 \overline{) 6\ 875} \\
 \underline{- 5} \phantom{00} \\
 18 \phantom{00} \\
 \underline{15} \phantom{00} \\
 37 \phantom{00} \\
 \underline{35} \phantom{00} \\
 25 \phantom{00} \\
 \underline{- 25} \leftarrow 5 \times 5 \\
 0
 \end{array}$$

- $25 \div 5 = 5$
- Multiply:  $7 \times 5 = 25$
- Subtract:  $37 - 35 = 0$

**Complete answer:** Mrs. Dela Rosa earns ₱ 1 375 a day.

To check if the answer is correct, we multiply what quotient you got (₱1375) by the divisor which is the number of days (5).

$\text{₱}1\ 375 \times 5 = \text{₱}6\ 875 \leftarrow$  the product is the same as the dividend, therefore, our answer is correct.

Here is an example of division by two-digit divisor.

$$3264 \div 22 = \underline{\hspace{2cm}}$$

For easy computation, you can use a trial divisor by rounding off the divisor to the nearest tens. A trial divisor is a rounded form of an actual divisor. It is used to estimate the quotient easily.

Follow the steps below.

*Step 1.* There are not enough thousands.

Take 32 hundred. Use 20 as the trial divisor.

$$\begin{array}{r}
 1 \\
 22 \overline{) 3264} \\
 \underline{\text{blue arrow} - 22} \leftarrow 1 \times 22 \\
 106
 \end{array}$$

- $32 \div 20 = 1$   
Write 1 above the hundreds digit.
- Multiply:  $1 \times 22 = 22$
- Subtract:  $32 - 22 = 10$
- Bring down 6 and regroup with 10 hundreds to get 106 tens.

Step 2. Divide 106 tens.

$$\begin{array}{r}
 14 \\
 22 \overline{) 3264} \\
 \underline{- 22} \phantom{00} \\
 106 \phantom{0} \\
 \underline{- 88} \phantom{0} \leftarrow 4 \times 22 \\
 184
 \end{array}$$

- $106 \div 20 = 5$   
But  $5 \times 22 = 110$ . Since 110 is bigger than 106, adjust 5 to 4. Write 4 above the tens digit.
- Multiply:  $4 \times 22 = 88$
- Subtract:  $106 - 88 = 18$
- Bring down 4 and regroup with 18 tens to get 184 ones.

Step 3. Divide 184 ones.

$$\begin{array}{r}
 14 \\
 22 \overline{) 3264} \\
 \underline{- 22} \phantom{00} \\
 106 \phantom{0} \\
 \underline{- 88} \phantom{0} \\
 184 \\
 \underline{- 176} \leftarrow 8 \times 22 \\
 8 \leftarrow \text{remainder}
 \end{array}$$

- $184 \div 20 = 9$   
But  $9 \times 22 = 198$ . Since 198 is bigger than 184, adjust 9 to 8. Write 8 above the ones digit.
- Multiply:  $8 \times 22 = 176$
- Subtract:  $184 - 176 = 8$ , we call 8 as the remainder

Hence, the answer to  $3264 \div 22$  is 148 r. 8.

You can see that there is a number left over. This is the **remainder**. You write the remainder with an **r.**, as what was done in the answer above.

To check if the answer is correct, multiply the quotient by the divisor.

$$\begin{array}{c}
 \bullet \quad 148 \times 22 = 3256 \\
 \swarrow \quad \searrow \\
 \text{quotient} \quad \mathbf{x} \quad \text{divisor}
 \end{array}$$

Then add the remainder.

$$\begin{array}{c}
 \bullet \quad 3256 + 8 = 3264 \\
 \swarrow \quad \searrow \\
 \text{remainder} \quad \text{dividend}
 \end{array}$$

We get a sum that is equal to the dividend. So, our answer above is correct.

## D. Let's Try!

A. Fill in the boxes with the missing digits.

$$\begin{array}{r} 5\boxed{\phantom{0}} \\ 1) 6 \overline{) 324} \\ \underline{- 30} \phantom{0} \\ 24 \\ \underline{- 24} \\ 0 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{0}}6\boxed{\phantom{0}} \text{ r. } \boxed{\phantom{0}} \\ 2) 7 \overline{) 4638} \\ \underline{- 42} \phantom{0} \\ 43 \\ \underline{- \boxed{\phantom{0}}\boxed{\phantom{0}}} \\ 18 \\ \underline{- 14} \\ 4 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{0}}\boxed{\phantom{0}}9 \text{ r. } \boxed{\phantom{0}} \\ 3. 9 \overline{) 5126} \\ \underline{- 45} \phantom{0} \\ \boxed{\phantom{0}}\boxed{\phantom{0}} \\ \underline{- 54} \\ 86 \\ \underline{- 81} \\ 5 \end{array}$$

B. Round off the divisor, and write your answer in the line below.

1. $34 \overline{) 6549}$	2. $26 \overline{) 8765}$	3. $9 \overline{) 789}$	4. $18 \overline{) 786}$	5. $21 \overline{) 8654}$
_____	_____	_____	_____	_____

## E. Let's Evaluate

Directions. A. Solve the following. Write your answer on a separate sheet of paper and show your solution.

1. $3 \overline{) 643}$	2. $5 \overline{) 495}$	3. $7 \overline{) 2247}$	4. $6 \overline{) 3247}$	5. $8 \overline{) 9725}$
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6. $14 \overline{) 4592}$	7. $24 \overline{) 2191}$	8. $27 \overline{) 9234}$	9. $32 \overline{) 2316}$	10. $15 \overline{) 7865}$
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## Math Challenge

Directions. Analyze and solve each word problem.

1. What number, when multiplied by 8 and divided by 3, gives 40?
2. What is the smallest whole number which when divided by 6 gives a remainder of 1 and when divided by 11 gives a remainder of 6?
3. There are 64 packs of candies in the bag. The packs of candies are equally divided among 8 children. How many packs each child will receive?

## **F. Reference**

Creag, Herminia C. 2022. Real-Life Mathematics 4 Second Edition.  
Quezon City, Philippines: ABIVA Publishing House, Inc.

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## Answer Key

### Quarter 2, Module 4

#### A. Look Back

1. a. How much Aleng Nena earns in 10 weeks?
- b. The given facts are: ₱ 9 258 Aleng Nena earns in a week and 10 weeks.
- c. The operation to be used is multiplication.
- d. Aleng Nena earned ₱ 9 258 in 10 weeks.
- e. ₱ 9 258 x 10 = ₱ 9 258

#### B. What's New?

1. 3
2. 5
3. 9
4. 27
5. 9

#### D. Let's try!

A. 1. 
$$\begin{array}{r} \phantom{0}5\boxed{4} \\ 6 \overline{) 324} \\ \underline{- 30} \phantom{0} \\ 24 \\ \underline{- 24} \\ 0 \end{array}$$

2. 
$$\begin{array}{r} \boxed{6}\boxed{6}\boxed{2} \text{ r. } \boxed{4} \\ 7 \overline{) 4638} \\ \underline{- 42} \phantom{00} \\ 43 \\ \underline{- 42} \phantom{00} \\ 18 \\ \underline{- 14} \\ 4 \end{array}$$

3. 
$$\begin{array}{r} \boxed{5}\boxed{6}9 \text{ r. } \boxed{5} \\ 9 \overline{) 5126} \\ \underline{- 45} \phantom{00} \\ \boxed{6}2 \\ \underline{- 54} \phantom{00} \\ 86 \\ \underline{- 81} \\ 5 \end{array}$$

- B. 1. 30      2. 30      3. 10      4. 20      5. 20

#### E. Let's Evaluate

1. 214 r. 1      2. 99      3. 321      4. 541 r. 1      5. 1 215 r. 5
6. 328      7. 91 r. 7      8. 342      9. 72 r. 12      10. 524 r. 5