

# Mathematics 4

## Microlearning Module

QUARTER 2 – Module 2

*Estimating Products*



**Mathematics 4**  
**Microlearning Module (MLM)**  
**Quarter 2 – Module 2: Estimating Products**  
**First Edition, 2024**

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**Published by the Department of Education- RO XII, Division of Sultan Kudarat**

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**Printed in the Philippines by**

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## MICROLEARNING MODULE

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

Subject: \_\_\_\_\_ Quarter: 2 MLM No.: 2

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

Competency: Estimate the result of multiplying two-digit numbers where the product is less than 1 000 000

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### A. Look Back!

Direction. Match column A with column B. Write your answer in the blank.

#### A

\_\_\_\_\_ 1.)  $3\,167 \times 12$

\_\_\_\_\_ 2.)  $3\,465 \times 32$

\_\_\_\_\_ 3.)  $4\,254 \times 65$

\_\_\_\_\_ 4.)  $378 \times 24$

\_\_\_\_\_ 5.)  $8\,721 \times 48$

#### B

a. 9 072

b. 418 608

c. 110 880

d. 38 004

e. 276 510

### B. What's New?

Directions. Round off each number to its largest place value. Write the answer in the space provided. Tick the box if the answer is rounded up or rounded down.

		round up	round down
1. 2 178	_____	<input type="checkbox"/>	<input type="checkbox"/>
2. 6 503	_____	<input type="checkbox"/>	<input type="checkbox"/>
3. 42 671	_____	<input type="checkbox"/>	<input type="checkbox"/>
4. 58 529	_____	<input type="checkbox"/>	<input type="checkbox"/>
5. 129 340	_____	<input type="checkbox"/>	<input type="checkbox"/>

In rounding off numbers to any given place, look at the digit to the right of the rounding place. Round up when the digit to the right is 5 or more, and round down when the digit is less than 5.

### C. What Is It?

To estimate the product, round off the factors to their greatest place value. Then multiply the rounded-off factors.

Study these examples.

$$\begin{array}{rcll} 1.) & 1248 \times 38 = \underline{\hspace{2cm}} & & \\ & 1248 \xrightarrow{\text{round off to}} & 1\ 000 & \\ & \times 38 \xrightarrow{\text{round off to}} & \times 40 & \\ \hline & & 40\ 000 & \longleftarrow \text{Estimated Product} \end{array}$$

$$\begin{array}{rcll} 2.) & 1263 \times 185 = \underline{\hspace{2cm}} & & \\ & 1263 \xrightarrow{\text{round off to}} & 1\ 000 & \\ & \times 185 \xrightarrow{\text{round off to}} & \times 200 & \\ \hline & & 2000 & \longleftarrow \text{Estimated Product} \end{array}$$

$$\begin{array}{rcll} 3.) & 4\ 765 \times 72 = \underline{\hspace{2cm}} & & \\ & 4765 \xrightarrow{\text{round off to}} & 5\ 000 & \\ & \times 72 \xrightarrow{\text{round off to}} & \times 70 & \\ \hline & & 3500 & \longleftarrow \text{Estimated Product} \end{array}$$

$$\begin{array}{rcll} 4.) & 6\ 841 \times 88 = \underline{\hspace{2cm}} & & \\ & 6\ 841 \xrightarrow{\text{round off to}} & 7\ 000 & \\ & \times 88 \xrightarrow{\text{round off to}} & \times 90 & \\ \hline & & 6300 & \longleftarrow \text{Estimated Product} \end{array}$$

$$\begin{array}{rcll} 5.) & 798 \times 64 = \underline{\hspace{2cm}} & & \\ & 798 \xrightarrow{\text{round off to}} & 800 & \\ & \times 64 \xrightarrow{\text{round off to}} & \times 60 & \\ \hline & & 48\ 000 & \longleftarrow \text{Estimated Product} \end{array}$$

Multiply the actual factors to see if each estimated product is reasonable.

## D. Let's Try!

A. Complete each sentence by writing your answer in the blank.

1. The value of  $3775 \times 22$  is about \_\_\_\_\_.

2. The value of  $2115 \times 25$  is about \_\_\_\_\_.

3. The value of  $3948 \times 21$  is about \_\_\_\_\_.

4. The value of  $4367 \times 36$  is about \_\_\_\_\_.

5. The value of  $5768 \times 52$  is about \_\_\_\_\_.

B. Write the rounded-off value of each factor in the box. Then, write the estimated product.

1. $\begin{array}{r} 1042 \\ \times 42 \\ \hline \end{array}$	2. $\begin{array}{r} 2745 \\ \times 37 \\ \hline \end{array}$	3. $\begin{array}{r} 7654 \\ \times 63 \\ \hline \end{array}$
$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$
$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$

## E. Let's Evaluate

A. Write the estimated product of the following:

1. $\begin{array}{r} 338 \\ \times 19 \\ \hline \end{array}$	2. $\begin{array}{r} 6172 \\ \times 14 \\ \hline \end{array}$	3. $\begin{array}{r} 2361 \\ \times 179 \\ \hline \end{array}$	4. $\begin{array}{r} 4327 \\ \times 34 \\ \hline \end{array}$	5. $\begin{array}{r} 5467 \\ \times 21 \\ \hline \end{array}$
$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$

6. $\begin{array}{r} 5281 \\ \times 47 \\ \hline \end{array}$	7. $\begin{array}{r} 4394 \\ \times 193 \\ \hline \end{array}$	8. $\begin{array}{r} 6758 \\ \times 65 \\ \hline \end{array}$	9. $\begin{array}{r} 8964 \\ \times 53 \\ \hline \end{array}$	10. $\begin{array}{r} 3598 \\ \times 103 \\ \hline \end{array}$
$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$	$\begin{array}{ c } \hline \\ \hline \end{array}$

### **Challenge!**

*Direction.* Analyze and solve each word problem.

1. Mang Nestor packs 60 boxes of mangoes to export. There are 84 mangoes in each box. About how many mangoes does Mang Nestor pack in all?

2. Jane bought 87 packs of cookies. Each pack has 32 cookies. About how many cookies Jane bought?

3. If a book contains 187 pages, how many pages are there in 5 books?

## **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**

### **Math 4 Quarter 2, Module 2**

#### **A. Look Back!**

1. d
2. c
3. e
4. a
5. b

#### **B. What's New?**

1. 2 000 – round down
2. 7 000 – round up
3. 40 000 – round down
4. 60 000 – round up
5. 100 000 – round down

#### **D. Let's try!**

A.

- |           |            |
|-----------|------------|
| 1. 80 000 | 4. 160 000 |
| 2. 60 000 | 5. 300 000 |
| 3. 80 000 |            |

B.

1.  $1\ 000 \times 40 = 40\ 000$
2.  $3\ 000 \times 40 = 120\ 000$
3.  $8\ 000 \times 60 = 480\ 000$

#### **E. Let's evaluate**

- |            |             |
|------------|-------------|
| 1. 6 000   | 6. 250 000  |
| 2. 60 000  | 7. 800 000  |
| 3. 400 000 | 8. 490 000  |
| 4. 120 000 | 9. 450 000  |
| 5. 100 000 | 10. 400 000 |

#### **Challenge!**

1. 480 mangoes
2. 270 cookies
3. 1 000 pages