



Republic of the Philippines  
**Department of Education**  
 Regional Office IX, Zamboanga Peninsula



JANUARY

*Matuguhon*

FEBRUARY

*Mahiguimaon*

MARCH

*Matinabungan*

APRIL

*Matinahuron*

MAY

*Makapsay og Malimpyo*

JUNE

*Maabtik og Masunod sa  
 Ohsaklong Oras*

JULY

*Maantigo og Maabilidad*

AUGUST

*Maginhuhuhunon  
 Para sa Uban*

SEPTEMBER

*Madaginaton*

OCTOBER

*Matinud-anon*

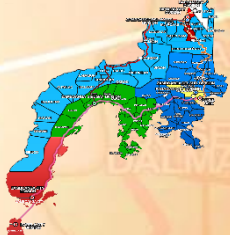
NOVEMBER

*Masaligan*

DECEMBER

*Maalampon*

**3**



Zest for P rogress  
 Zeal of P artnership

# Mathematics

Quarter 3 - Module 8

## Finding Missing Value in a Number Sentence



Name of Learner: \_\_\_\_\_

Grade & Section: \_\_\_\_\_

Name of School: \_\_\_\_\_



## What I Need to Know

In the previous module you learned about determining the missing term in a pattern. In this module, you will learn how to find the missing value in a number sentence involving multiplication or division of whole numbers.

At the end of this module, you are able to:

1. Finds the missing value in a number sentence involving multiplication or division of whole numbers.



## What I Know

**Directions:** Select and write the letter of the correct answer on the space given.

*For numbers 1-5, use the word problem inside the box.*

**There are 18 baskets of roses. Each basket has 12 roses. How many roses in all?**

- \_\_\_\_\_ 1. What are **given in the problem**?  
A. 12 roses  
B. basket and roses  
C. 18 baskets of roses  
D. 18 baskets of roses and 12 roses
- \_\_\_\_\_ 2. What **operation** will you use?  
A. division      B. multiplication      C. subtraction      D. addition
- \_\_\_\_\_ 3. Which of the following is the correct **number sentence** of the problem?  
A.  $18 \times 12 = n$                       B.  $18 \div n = 12$   
C.  $n \times 18 = 12$                       D.  $n \div 12 = 18$
- \_\_\_\_\_ 4. What is **n** in the equation of word problem given?  
A. 212              B. 216              C. 261              D. 262
- \_\_\_\_\_ 5. How did you get the answer?  
A. I divide 12 into 18              C. I multiply 18 to 12  
B. I multiply 12 to 216              D. I divide 18 into 12



## What's In

### Activity 1: Fill Me Up

**Directions:** Give the missing numbers in the pattern.

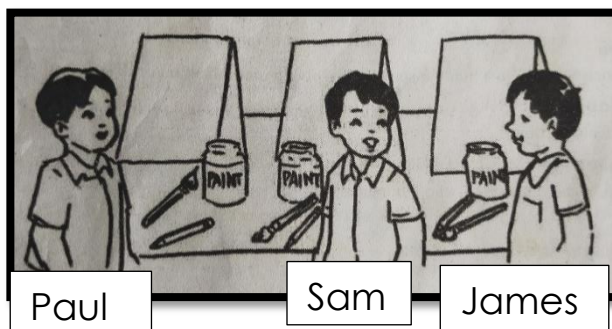
1. 2, 7, \_\_\_\_, 17, 22, \_\_\_\_, 32.
2. 2, 4, \_\_\_\_, 8, 10, \_\_\_\_.
3. 4, 8, \_\_\_\_, 16, \_\_\_\_, 24.
4. 3, 6, \_\_\_\_, 12, \_\_\_\_ 18.
5. 5, \_\_\_\_, 15, \_\_\_\_, 25, 30.



## What's New

### Activity 2: Making List

**Directions:** Look at the illustration. List the materials they needed in an art class. Write the names of materials in the corresponding names in the table below.



| Materials needed : |     |       |
|--------------------|-----|-------|
| Paul               | Sam | James |
|                    |     |       |
|                    |     |       |
|                    |     |       |
|                    |     |       |

### Guide Questions:

1. How many boys are there? \_\_\_\_\_
2. How many materials do they need each on their art? \_\_\_\_\_
3. How many materials do they need in all? \_\_\_\_\_
4. How do we get the answer? \_\_\_\_\_



# What is it

Based on the illustration given, you are asked:

1. How many boys are there?  
**(There are 3 boys.)**
2. How many materials do they need each on their art?  
**(There are 4 materials needed.)**
3. How many materials do they need in all?  
**(There are 12 materials needed.)**
4. How can we get the answer?  
**(To find how many materials, we can count, add or multiply)**

To find the total number of materials that were needed,

|             |                  |                           |          |                         |
|-------------|------------------|---------------------------|----------|-------------------------|
| <b>3</b>    | <b>x</b>         | <b>4</b>                  | <b>=</b> | <b>12</b>               |
| <b>boys</b> | <b>materials</b> | <b>needed by each boy</b> |          | <b>materials in all</b> |

So, the boys needed 12 materials.

How many materials do each boy need?

Divide to find how many materials each boy needed.

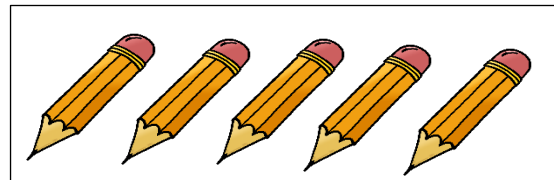
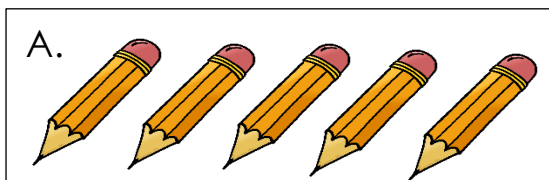
|                         |          |             |          |                                     |
|-------------------------|----------|-------------|----------|-------------------------------------|
| <b>12</b>               | <b>÷</b> | <b>3</b>    | <b>=</b> | <b>4</b>                            |
| <b>materials in all</b> |          | <b>boys</b> |          | <b>materials needed by each boy</b> |

So, each boy needs 4 materials.

How are multiplication and division related?

Here are the examples, use the picture to solve.

We will use **n** for the missing number, which **n** represent a specific number that is needed to make the multiplication and division true.



|          |          |          |          |             |           |          |          |          |          |
|----------|----------|----------|----------|-------------|-----------|----------|----------|----------|----------|
| <b>2</b> | <b>x</b> | <b>5</b> | <b>=</b> | <b>n</b> ,  | <b>10</b> | <b>÷</b> | <b>5</b> | <b>=</b> | <b>n</b> |
| <b>2</b> | <b>x</b> | <b>5</b> | <b>=</b> | <b>10</b> , | <b>10</b> | <b>÷</b> | <b>5</b> | <b>=</b> | <b>2</b> |

What have you notice of the illustration shown?

**Answer: That the multiplication and division are opposite/inverse operation.**

Since the division is the opposite of multiplication, a multiplication fact can help you find the quotient.

Try these another equation.

Find the missing number in a number sentence.

$$5 \times n = 70$$

$$\text{Solution: } 70 \div 5 = 14$$

So, substitute 14 to n

$$5 \times 14 = 70$$

Let's try another one, make the equation correct.

$$8 \times 3 = 6 \times \underline{n}$$

So we have to find the n. So multiply  $8 \times 3 = 24$

And think of a number to be multiply by 6 to get the product of 24. By using the multiplication fact the number to be multiplied by 6 to get the product of 24 is **4**. So **4** is the missing number.

$$8 \times 3 = 6 \times 4$$

$$24 = 24$$

What does it show? It shows EQUALITY which is a relationship between two quantities that have the same value.

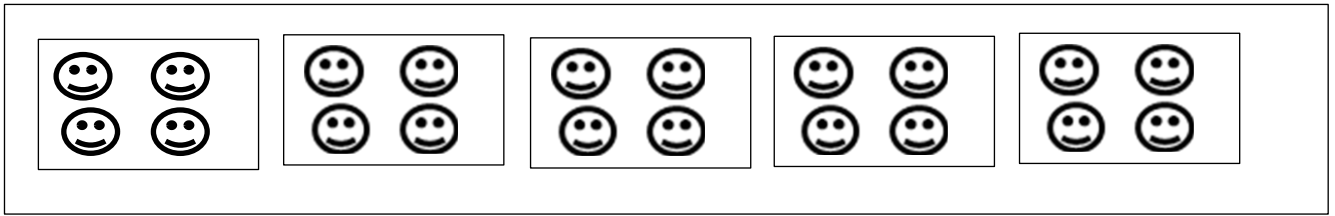


## What's More

### Activity 3: Write and Solve Me

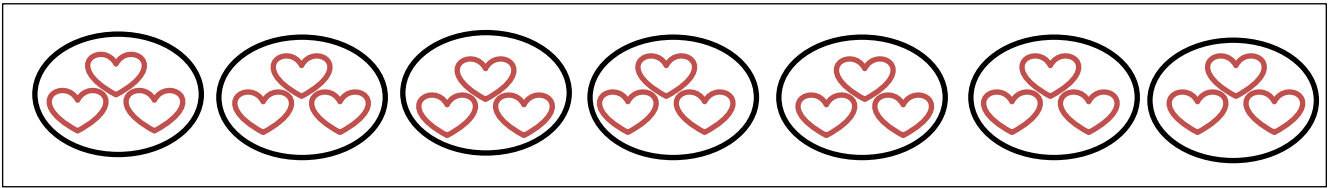
**A. Directions:** Write the number sentence and solve.

1. The 20 pupils in Ms. Cainglet's class work in groups of 4 . How many groups of 4 are in Ms. Cainglet's class?



Number sentence:  
 \_\_\_\_\_ = \_\_\_\_\_

2. Harry puts 3 hearts in each circle. How many circles does he need for 21 hearts.



Number sentence:  
 \_\_\_\_\_ = \_\_\_\_\_



## What I Have Learned

### Activity 4: Match Me

**Directions:** Find the value of n. Match column A to column B.  
 Write the letter of your answer on the space provided.

#### Column A

\_\_\_ 1.  $5 \times 3 = n \div 3$

\_\_\_ 2.  $120 \div 10 = n \times 6$

\_\_\_ 3.  $18 \times 6 = n$

\_\_\_ 4.  $n \times 7 = 1 \times 28$

\_\_\_ 5.  $5 \times n = 80$

#### Column B

A. 45

B. 108

C. 16

D. 2

E. 4



## IMPORTANT THINGS TO REMEMBER:

How can you find the missing value in a number sentence involving multiplication and division?

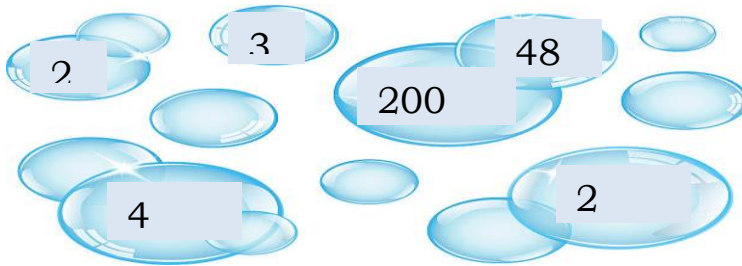
- Analyze the number sentence and find what term in the multiplication sentence or division sentence is/are missing.
- Multiplication and division are opposite/inverse operations.
- Knowing multiplication facts can help you find the missing division facts and vice versa.
- You can use division to check multiplication and multiplication to check division.



## What I Can Do

### Activity 5: "Finding Numero"

**Directions:** Find the missing number of the following number sentence from the bubbles. Write the number on the blank.



1.  $8 \times 3 = \underline{\quad} \div 6$

4.  $18 \times 6 = 54 \times \underline{\quad}$

2.  $150 \div 10 = \underline{\quad} \times 5$

5.  $\underline{\quad} \div 6 = 8$

3.  $\underline{\quad} \div 25 = 8$



## Assessment

Multiple Choice:

**Directions:** Choose the letter of the correct answer.

Write your answer on the space provided.

\_\_\_\_\_ 1.

Look at the equation.

Given:  $10 \times n = 40$

Solution:  $40 \div 10 = 4$

What is the value of  $n$ ?

A. 0

B. 4

C. 10

D. 40

- \_\_\_\_\_ 2. What statement can you tell about the equation above?  
 A. To find  $n$ , multiply 10 to 40.  
 B. To find  $n$ , multiply 10 to 4.  
 C. To find  $n$ , divide 40 by 4.  
 D. To find  $n$ , divide 40 by 10.
- \_\_\_\_\_ 3. How do you interpret the relationship on the above equation?  
 A. Multiplication and division are of different operation.  
 B. Multiplication and division are the same operation.  
 C. Multiplication and division are inverse operation.  
 D. Multiplication and division has no relationship.
- \_\_\_\_\_ 4. What is the missing number of the number sentence  $9 \times n = 36$   
 A. 3          B. 4          C. 5          D. 6
- \_\_\_\_\_ 5. Which of the following equation shows the relationship of equality?  
 A.  $5 \times 2 = 3 \times 5$                       C.  $8 \times 4 = 5 \times 8$   
 B.  $8 \times 2 = 4 \times 4$                       D.  $7 \times 3 = 6 \times 4$

**References:**

**Books:**

Chingcuangco, Ofelia G., Henry P. Contemplacion, Eleonorr I. Flores, Laura N. Gonzaga, Carolina O Guevarra, Gerlie M. Ilagan, Marites S. Patacsil, Maria Corazon C. Silvestre, Remy Linda T. Soriano, Victoria C. & Dominador J. Villafria. *Mathematics 3 Kagamitan sa Mag-aaral sa Sinugbuanong Binisaya*. Pasig: VICARISH Pub, 2014, 259-262

**Online Resources:**

Pinterest, *transparent background pencil clip-art*. [www.pinterest.com](http://www.pinterest.com)  
 ClipartLibrary, *simple hairbow cliparts*. [www.clipart.library.com](http://www.clipart.library.com)  
 WebStocks, *bubble clipart vector*, *Bubble vector transparent FREE*. [www.webstockreviews.net](http://www.webstockreviews.net)  
 Free Printable Fire truck coloring pages for kids, [www.cool2bkids.com](http://www.cool2bkids.com)  
 Algebra Basic Math Explained "Meaning of  $n$  in an Equation" [www.basic-math-explained.com](http://www.basic-math-explained.com)

**Development Team**

Writer: **Mirasol s. Cainglet**

Editors/QA: **Crislyn M. Makasiar**  
**Romar P. Navarro**  
**Jennifer F. Gadian**  
**Lea M. Indayo**

Reviewer: **Gina I. Lihao**  
 EPS-Mathematics

Illustrator:  
 Layout Artist:

Management Team:

**Evelyn F. Importante**  
 OIC- CID Chief EPS

**Dr. Aurelio A. Santisas, CESE**  
 OIC- Assistant SDS

**Dr. Jenealyn A. Aleman, CESO VI**  
 OIC- Schools Division Superintendent