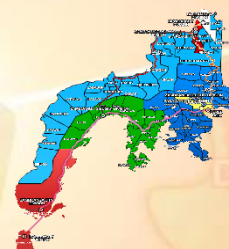




Republic of the Philippines
Department of Education
Regional Office IX, Zamboanga Peninsula



Zest for *P*rogress
Zeal of *P*artnership

Mathematics

Quarter 3 - Module 4:

Finding Missing Term and Number



Name of Learner: _____

Grade & Section: _____

Name of School: _____



What I Need to Know

The module contains two lessons:

- Determining the missing term/s in a sequence of numbers (e.g. odd numbers, even numbers, multiples of a number, factors of a number, etc.)
- Finding the missing number in an equation involving properties of operations.

After going through this module, you are expected to:

1. Determine the missing term/s in a sequence of numbers (e.g. odd numbers, even numbers, multiples of a number, factors of a number, etc.)
2. Find the missing number in an equation involving properties of operations.



What I Know

Directions: Encircle the letter of the correct answer.

1. It is a list of numbers arranged in a row.
 - A. Term
 - B. Number Sequence
 - C. Ascending Sequence
 - D. Descending Sequence
2. What do you call each number in a sequence?
 - A. Term
 - B. Number
 - C. Sequence
 - D. Arithmetic
3. In a sequence of odd numbers 1, 3, 5, __, 9, __, 13 what are the missing terms?
 - A. 2 and 4
 - B. 6 and 8
 - C. 7 and 11
 - D. 15 and 17
4. Determine the missing terms in a sequence of even numbers 6, 8, 10, __, 14, 16, __
 - A. 1 and 2
 - B. 2 and 4
 - C. 3 and 4
 - D. 12 and 18

5. What are the missing terms in a sequence of numbers 2, 4, 8, __, 22, 32, ____, 58?
- A. 14 and 44
 - B. 12 and 34
 - C. 16 and 40
 - D. 18 and 42
6. Complete the number sequence determine the missing terms in 45, 37, 29, __, ____, 5
- A. 27 and 7
 - B. 25 and 9
 - C. 23 and 11
 - D. 21 and 13
7. Fill in the missing number in an equation using Commutative Property of Addition
 $3 + 8 = _ + 3$.
- A. 2
 - B. 4
 - C. 6
 - D. 8
8. Complete the missing number in an equation using Commutative Property of Multiplication $5 \times 4 = 4 \times _$.
- A. 3
 - B. 5
 - C. 7
 - D. 9
9. To complete an equation using Associative Property of Addition $(3+5)+2 = 3+(_+2)$, what is the missing number?
- A. 2
 - B. 3
 - C. 4
 - D. 5
10. In an equation using Distributive Property find the missing numbers
 $5 \times (7 + 2) = (5 \times 7) + (_ \times _)$
- A. 5 and 2
 - B. 3 and 5
 - C. 2 and 4
 - D. 1 and 2



What's In

Activity 1: Check If I Am Arranged in Order!

Directions: Put a check  if the set of numbers below are arranged (ascending/descending) correctly and put an **X** if it is arranged incorrectly.

Ascending Order

- _____ 1. 2, 4, 6, 8, 10
- _____ 2. 5, 10, 15, 20, 25
- _____ 3. 1, 3, 5, 7, 9, 11
- _____ 4. 20, 18, 16, 14, 12
- _____ 5. 1, 2, 4, 7, 11

Descending Order

- _____ 1. 42, 47, 40, 38, 36
- _____ 2. 2, 5, 3, 7, 4
- _____ 3. 3, 6, 9, 12, 15
- _____ 4. 10, 9, 8, 7, 6
- _____ 5. 20, 18, 16, 14, 12



What's New

Read the problem and answer question below.

Maliah joined Girl's Scout Camping. She is a competitive scouter that is why she earned multiple scout ribbons. The first ribbon counts 2 points and every succeeding ribbon increases 1 point, how many points will Maliah received if she got 6 scout ribbons?

- What is asked? _____
- What are the given facts? _____
- How is the solution done _____
- What is the answer? _____



What is it

To find the missing term in each sequence of numbers, we should:

Determine the order of number if it is ascending or descending.

Find the difference between the consecutive terms.

Determine whether the difference between the terms are all odd, even, multiples of a number, or a factor of a number.

Example : Finding the missing term in an ascending sequence of number.

$$\begin{array}{ccccccc} 7, & 10, & _, & 16, & _ \\ & 7, & 10, & 13, & 16, & 19 \\ & \cup & +3 & \cup & +3 & \cup & +3 & \cup & +3 \end{array}$$

Therefore each term is formed by adding 3 to the next number. The missing terms are **13 and 19**.

Example: Finding the missing term in a descending sequence of number.

$$\begin{array}{ccccccc} (& 45, & 37, & 29, & _, & _, & 5) \\ & 45 - 8 = & 37 \\ & 37 - 8 = & 29 \\ & 29 - 8 = & \underline{21} \\ & 21 - 8 = & \underline{13} \\ & 13 - 8 = & 5 \end{array}$$

Therefore the common difference between terms is **8**. The missing terms are **21 and 13**.

An equation is a mathematical sentence that states the equality of expressions. It is separated by an equal sign and both sides have the same result.

Now, let us find the missing number in an equation involving properties of operations.

Example

Distributive Property of Multiplication Over Addition

When multiplying a sum by a number gives the same result as multiplying each addend by the number and then adding the products together.

$$\begin{array}{l} 5 \times (7 + 2) = (5 \times 7) + (5 \times 2) \\ 5 \times 9 = 35 + 10 \\ 45 = 45 \end{array}$$

$$\begin{array}{l} 2 \times (5 + 5) = (2 \times 5) + (2 \times 5) \\ 2 \times 10 = 10 + 10 \\ 20 = 20 \end{array}$$

Commutative Property and Associative Property of Addition

When three or more numbers are added, the sum is the same regardless of the way in which the numbers are grouped.

$$(40+5) + (30+15)=(5+15)+(40+30)$$

$$45+45 = 20+70$$

$$90=90$$

$$(25 + 3) + (15+5) = (20+8) + (18 + 2)$$

$$28 + 20 = 28 + 20$$

$$48 = 48$$



What's More

Activity 2. 1: Fill Me In!

Directions: Fill in the missing even or odd number.

1. 2, 4, 6, ____, 10, ____

2. 5, 10, ____, ____, 25, 30

3. 1, 3, 7, ____, 21, ____,

4. 4, 8, 12, ____, 20, ____

5. 64, 57, ____, 43, ____, 29

Activity 2.2: Pick Me From the Oval!

Directions: Find the missing number from the oval and fill in the blank to complete the equation using the associative and commutative property.

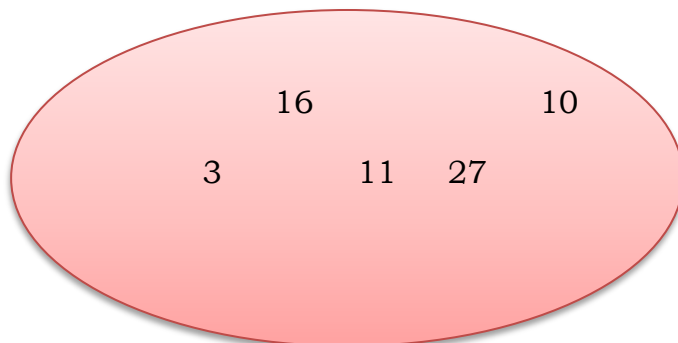
1. $4 \times (3 \times 2) = (4 \times 2) \times \underline{\hspace{1cm}}$

2. $20 \times 5 \times 11 = 20 \times (\underline{\hspace{1cm}} \times 5)$

3. $60 + 33 = \underline{\hspace{1cm}} + 66$

4. $10 \times 15 = 15 \times \underline{\hspace{1cm}}$

5. $(16 + 24) + (12+7) = (7+24) + (\underline{\hspace{1cm}}+12)$





What I Have Learned

Activity 3.1: My Perfect Match!

Directions: Match column A to column B to find the missing term.

A

B

1. 8 11 15 20 26 __

A. 35

2. 6 __ 16 21 26

B. 11

3. 1 12 23 34 __ 56

C. 33

4. 1 3 9 27 81 __

D. 243

5. 5 7 11 17 25 __

E. 45

Activity 3.2 : Find My Match!

Directions: Match column A to column B to complete the equation.

A

B

1. $5x(8+9) = (__x8) + (__x9)$

A. 1

2. $(0+15) + (15x1) = (30+ __)$

B. 5

3. $7x(3x+5) = (__x3) + (__x5)$

C. 43

4. $__x1 = 46-3$

D. 7

5. $37-17 = 19 + __$

E. 0



What I Can Do

Activity 4.1: “Help Me Find Missing Part”

Directions: Complete the number sequence by filling in the missing terms

1. 5, 6, 8, __, 15, __
2. 18, 20, 24, ---, 38, ---
3. 25, 28, 34, __, __, 70
4. 55, 54, 51, 46, __, __, 19
5. 82, 81, 78, __, 66, __

Activity 4.2: Show Me What You’ve Got!

Directions: Use the properties to make the following equations true by filling the missing number/s . Check the equation to find out if your answer is correct.

1.	$__ \times (4 + 8)$	$= (2 \times __) + (2 \times __)$
2.	$6 + 10 + 12 + 24$	$= (__ + __) + (6 + 24)$
3.	$(7 + 1) + 0$	$= __ \times (1 + __)$
4.	$12 \times __$	$= __ \times 15$
5.	$__ + 240$	$= 460 + __$



Assessment

Directions: Encircle the letter of the correct answer.

1. What is the third term and the fourth term of the given sequence:
33, 35, __, 39, __, 43?
A. 37, 41 B. 36, 42 C. 37, 43 D. 35, 42
2. What is the second term and the fifth term in number sequence:
41, __, 51, 56, __
A. 46, 51 B. 45, 60 C. 46, 61 D. 45, 61
3. Here is a number pattern: What three numbers should go in the blank?
100, 1, 99, 2, 98, __, __, __.
A. 3, 97 and 5 B. 4, 97 and 6 C. 3, 96 and 4 D. 3, 97 and 4

4. Lorena visits her sister every seventh day of the week. She visited her sister last December 1, 2014. At what date will she visit her sister for the fourth time?
- A. December 8, 2014 C. December 15, 2014
B. December 22, 2014 D. December 29, 2014
5. Alma has a magic basket. Anything she places inside the basket double every minute. If she placed an apple inside the basket, how many apples would there be after 6 minutes?
- A. 8 apples B. 16 apples C. 32 apples D. 64 apples
6. Look for the missing number in the equation. $1 \times \underline{\quad} = 17 + 3$
- A. 14 B. 3 C. 18 D. 20
7. Find the missing number. $17 \times 4 = 4 \times \underline{\quad}$
- A. 11 B. 14 C. 17 D. 13
8. What is the missing number $5 \times 7 = 35 + \underline{\quad}$?
- A. 1 B. 0 C. 7 D. 5
9. Find the missing numbers in an equation. $(12 + 2) + 16 = \underline{\quad} + (\underline{\quad} + 16)$
- A. 2, 16 B. 14, 2 C. 16, 12 D. 12, 2
10. In the equation $8 \times (\underline{\quad} + 2) = (8 \times 3) + (\underline{\quad} \times 2)$ what are the missing numbers.
- A. 3, 8 B. 2, 8 C. 8, 24 D. 3, 2

Additional Activities

Read the problem and answer the question below.

Mariz loves to play marbles and she often wins the game. Her every game how many pieces of marbles did she got in all marbles start at 3 pieces. Every game her marbles triple in count. If Mariz played for 5 games and consecutively wins after she played?

What is asked?

What are the given facts?

What operation is needed?

How is the solution done?

What is the answer?

Mr. and Mrs. Carino pay their water bill monthly. The minimum payment for their water bill is 5 cubic meter which costs 25.00 php, the succeeding cubic meter costs 10 php. If the family Carino can consume 20 cubic meter monthly how much will they pay for the month of June ?

What is asked?

What are the given facts?

What operation is needed?

How is the solution done?

What is the answer?

Rubrics in Solving World Problem

Points	Description
5	Accomplishes the purposes of the task. Fully understands the concepts and content.
4	Substantially completes purpose of the task. Displays understanding of major concepts even though some less important ideas are missing.
3	Purpose of the task not fully achieved; it needs elaboration. Some strategies are not appropriate.
2	Important purposes of the task not achieved. Approach to task may lead away from its completion.
1	Purpose of the task not accomplished.

References

Tabilang, Alma R., Ian Jay B. Arce, Rodrigo V. Pascua, Nelma P. Calayag, et al., *Mathematics 4 Learner's Material*. edited by Mary Jeanne B. Aldeguer. Pasig: Department of Education, 2015

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