4

Mathematics 4

Microlearning Module

QUARTER 3 – Module 7

Finding all the Factors of a Given Number up to 100

Microlearning Module

REGION XII - DIVISION OF SULTAN KUDARAT

Mathematics 4
Microlearning Module (MLM)
Quarter 3 – Module 7: Finding all the factors of a given number up to 100
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Development Team

Writer	:	Marlou B. Faeldonia
Editor	:	Roger B. Famulag
Evaluator	:	Renante S. Gura
Illustrator	:	Marlou B. Faeldonia
Cover Art Designer:		Jann Mark P. Oriel
Management Team:		Crispin A. Soliven Jr., CESE – Schools Division Superintendent
		Meilrose B. Peralta EdD – Asst. Schools Division Superintendent
		Ismael M. Ambalgan – Chief, CID
		Sheryl L. Osano – EPS, LRMS
		Rodolfo B. Bermudo Jr. EdD – EPS, Mathematics

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Office Address: Kenram, Isulan, Sultan Kudarat
Telefax: 064-471-1007
E-mail Address: depedsk.r12@deped.gov.ph

MICROLEARNING MODULE

Name: _____Grade & Sec: _____ Score: _____
Subject: _____Quarter: _____ MLM No. _____
Teacher: _____
Competency: Find the factors of all given numbers up to 100

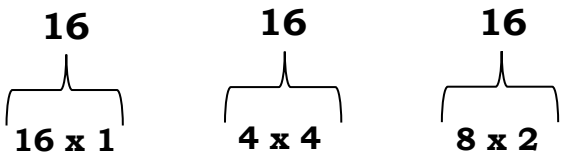
A. Look Back!

Using the illustration below, mark an (X) on each of the boxes that indicate the multiples of 9.

64	**51**	**6**	**16**	**24**
40	**45**	**48**	**80**	**4**
101	**56**	**90**	**15**	**96**

B. What's New?

Try to analyze the process in finding the factors of 16.



Guide Question:

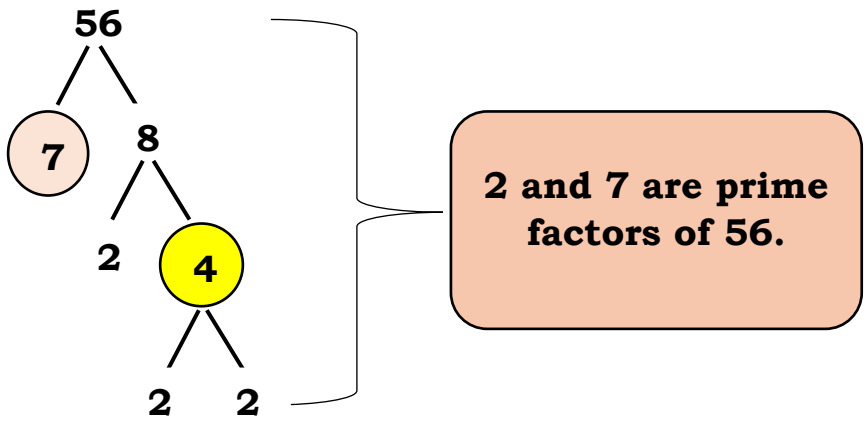
1. What are the factors of 16? Write your answer in the box provided.

C. What Is It?

A. Prime and Composite Numbers

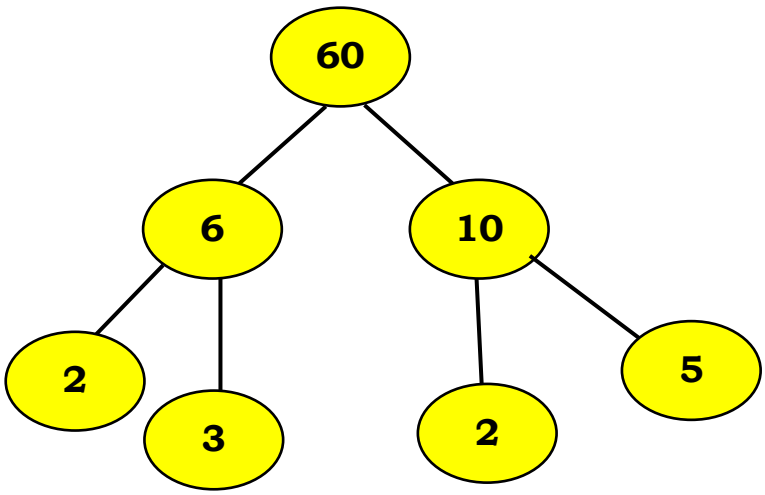
Composite numbers are numbers that have more than two factors including 1 and itself. For example, 6 is a composite number because it is divisible by 1, 2, 3, and even by 6. **Prime numbers** are numbers greater than 1 with exactly two factors including 1 and itself.

Let us study the illustration below.



One way to express the factors of a number, specifically the prime factorization of a number, is called a **factor tree**. To do this, list the factors of a number until the number has been reduced to its prime factors.

For example, here is the factor tree for the number 45.



60= 2 X 2 X 3 X 5
or
60= 2^2 X 3 X 5

B. GREATEST COMMON FACTOR

The **Greatest Common Factor (GCF)** is the largest common factor of two or more given numbers.

Example: Find the Greatest Common Factor of 18 and 27 using the illustration.

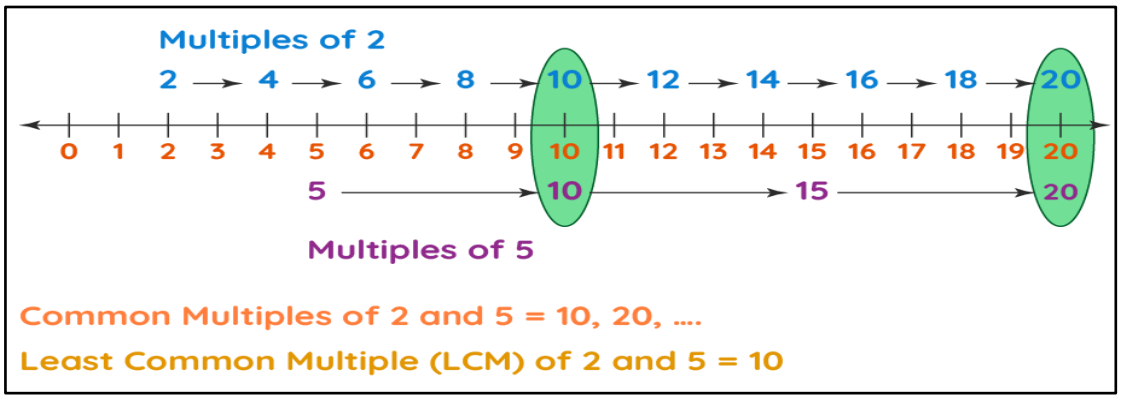
Factors of 18:	1	2	3	6	9	18
Factors of 27:	1	3	9	27		

The common factors of 18 and 27 are 1,2, and 3. Thus, the GCF is 9.

C. LEAST COMMON MULTIPLE

Least Common Multiple (LCM) is the smallest common multiple of two or more given numbers.

Example: Find the Least Common Multiples of 2 and 5 using the number line illustration.



The multiples of 2 are 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and so on. Multiples of 5 are 5, 10, 15, 20, and so on. Therefore, the LCM of 2 and 5 is 10.

D. Let's try!

Activity 1: Find the Least Common Multiple and Greatest Common Factor.

	LCM	GCF
16, 10		
14, 6		
3, 27		
6, 18		
9, 45		

E. Let's Evaluate

Directions: Read each statement carefully. Write the correct answer in the space provided.

_____ 1. What is the GCF of 36 and 60?

a. 8 b. 6 c. 4 d. 12

_____ 2. What is the LCM of 16, 64, and 128?

a. True b. False

_____ 3. There are two ropes; one has a length of 56 cm and the other has a length of 64 cm. Mary wants to cut both ropes into an equal number of pieces. What is the maximum number of pieces in which each rope can be cut into?

a. 10 b. 8 c. 7 d. 64

_____ 4. Choose the pair of numbers whose GCF is 12.

a. 24, 60 b. 12, 18 c. 6, 24 d. 12, 36

_____ 5. Allan wants to cut 60 cm from a 90 cm long stick into equal length for his project. What is the length of each stick?

a. 20 cm b. 30 cm c. 40cm d. 50 cm

Direction: Find the GCF and LCM of the following sets of numbers.

		GCF	LCM
6.	5, 20	_____	_____
7.	14, 16	_____	_____
8.	21, 3	_____	_____
9.	4, 6, 24	_____	_____
10.	4, 8, 32	_____	_____

F. References:

Department of Education (DepEd). Mathematics Matatag Curriculum. Manila: Department of Education, 2023.

"How to Factor a Number." wikiHow. Accessed October 15, 2024. https://www.wikihow.com/Factor-a-Number.

DISCLAIMER

This Microlearning Module has been developed by DepEd - Division of Sultan Kudarat for educational purposes only. It is designed to supplement classroom instruction and should not be used as the sole source of information. Teachers are encouraged to exercise their professional discretion and tailor the content to suit their students' individual needs.

REGION XII - DIVISION OF SULTAN KUDARAT

Answer Key for Math 4, Quarter 3 LC. No. 7

A. Look Back!

64	**51**	**6**	**16**	**24**
40	**45**	**48**	**80**	**4**
101	**56**	**90**	**15**	**96**

B. What's New?

Guide Question

1	**2**	**4**	**8**	**16**

C. **Let's try!**

Activity 1: Find the Least Common Multiple and Greatest Common Factor.

	LCM	**GCF**
16, 10	80	2
14, 6	42	2
3, 27	27	3
6, 18	18	6
9, 45	45	9

F. Let's Evaluate

1. d
2. b
3. b
4. a and b
5. b

Direction: Find the GCF and LCM of the following sets of numbers.

		GCF	LCM
6.	5, 20	5	20
7.	14, 16	2	112
8.	21, 3	3	21
9.	4, 6, 24	2	24
10.	4, 8, 32	4	32