



Mathematics 4 Microlearning Module

OUARTER 3 – Module 8

Reducing Fractions to Simplest Form





REGION XII - DIVISION OF SULTAN KUDARAT

Mathematics 4 Microlearning Module (MLM) Quarter 3 – Module 8: Reducing Fractions to Simplest Form First Edition, 2024

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MICROLEARNING MODULE

Name:	Grade & Sec:	Score:	
Subject:	Quarter: <u>3</u>	MLM No.	8
Teacher:			
0			

Competency: Reduce fractions to the simplest form

A. Look Back!

List down the common factors of the following sets of numbers. Write your answer on a separate sheet.

- $1. \ 4 \ and \ 8$
- $2. \ 3 \ and \ 9$
- 3. 6 and 12
- 4. 5 and 10
- 5. 5 and 50

B. What's New?

Observe the following pictures:

Picture A

Picture B





- 1. What is the weight of the fish?
- 2. What is the weight of the fruits?
- 3. What part of the kilogram is the weight of fish?
- 4. What part of the kilogram is the weight of fruits?

C. What Is It?

Example 1: Kyle helps Greg in cleaning their house. They spend 2 hours doing this every Saturday morning. What part of the day do they spend in cleaning their house? Express your answer in the lowest term.

Let's Comprehend!

- 1. What did Kyle and Greg do every Saturday morning?
- 2. How will you describe Kyle and Greg?
- 3. Is it good to help your parents in doing household chores?
- 4. What is asked in the problem?
- 5. How will you solve it?

Let's Analyze and answer the problem.

- 1. What day in a week do they spend cleaning?
 - Kyle and Greg spend 2 hours cleaning the house.
- 2. How many hours are there in a day?
 - There are 24 hours in a day.
- Express 2 out of 24 hours into a fraction
 2/24



To reduce the fraction to the lowest term, you need to get the GCF of the numerator and the denominator first. Then, reduce the fraction to its lowest term by dividing each number by its Greatest Common Factor (GCF).

Analyze the methods below on how to get the (GCF) and find out if you can get the same lowest term.

Reducing fractions using the Listing Method.

1. List the factors of the numerator and denominator, and find their Greatest Common Factor (GCF).

Factors of 2 =1 2 Factors of 24 =1 2 3 4 6 8 12 and 24

The Greatest Common Factor (GCF) of 2 and 24 is 2.

2. Divide the numerator and denominator by their GCF. $2 \div 2 = 1$ $24 \div 2 = 12$ $\frac{1}{12}$ is the simplest/ lowest term of $\frac{2}{24}$

3. To change a fraction to its lowest term, divide both the numerator and the denominator by their GCF.

Complete Answer: Enzo and Greg spent $\frac{1}{12}$ in cleaning their house.

Example 2. Find the factor of $\frac{4}{20}$.

Factors of 4: 1 2 4 Factors of 20: 1 2 4 5 10

The GCF of 4 and 20 is $\frac{4}{20 \div 4} = \frac{1}{5}$ simplest form

Example 3. Study the problem below.

Sleep is an important part of the fitness plan. The ressa Marie sleeps 8 hours or $\frac{8}{24}$ hour. Find the lowest term of $\frac{8}{24}$.

Look at the fraction strips that show the following fractions in their lowest terms.



Among the fractions presented in the fraction strips, what are the lowest terms or the simplest form of $\frac{8}{24}$?

The simplest form of $\frac{8}{24}$ is $\frac{1}{3}$. Therefore; Marie sleeps $\frac{1}{3}$ of the day. You can find the simplest form of a fraction by dividing the numerator and the denominator by its greatest common factor (GCF).

$$\frac{8 \div 8}{24 \div 8} = \frac{1}{3}$$

Why is $\frac{1}{3}$ considered to be in the simplest form? *The numerator is 1 and both numerator and denominator have no common factor except one.*

Remember:

- The greatest common factor (GCF) is the biggest factor common to the two or more numbers.
- A fraction is in its lowest form when the GCF of the numerator and denominator is the same.
- To express a fraction in the lowest form, follow these steps.
 - Find the GCF of the numerator and denominator.
 - Divide the numerator and the denominator with their GCF.

D. Let's Try!

Find the greatest common factor for each of the following:

1.
$$\frac{9 \div 3}{15 \div 3} = \frac{3}{5}$$

GCF 3
4. $\frac{8 \div 4}{12 \div 4} = \frac{2}{3}$
GCF 4
4. $\frac{8 \div 4}{12 \div 4} = \frac{2}{3}$
GCF 5
CF 3
5. $\frac{9 \div 3}{12 \div 3} = \frac{3}{4}$
CF 3
CF 3
CF 3
CF 3
CF 7
7. $\frac{5 \div 5}{15 \div 5} = \frac{1}{3}$
CF 3

$$10. \frac{5 \div 5}{10 \div 5} = \frac{1}{2}$$

$$\downarrow$$
GCF 5

Use the illustrations to complete the following:



E. Let's Evaluate:

Directions: Write all your answers on separate sheet of paper.

A. Match the numbers in Column A with the greatest common factor of the two numbers found in Column B.

	Α	В		
1)	24 and 20	a.	8	
2)	30 and 36	b.	4	
3)	45 and 50	c.	7	
4)	21 and 35	d.	5	
5)	16 and 40	e.	6	

B. Write each fraction in simplest form.

1)
$$\frac{8}{18}$$
 2) $\frac{12}{36}$ 3) $\frac{10}{24}$ 4) $\frac{6}{10}$ 5) $\frac{14}{16}$

- C. Read and solve each problem. Draw a picture that represents the problem.
- 1. Jake has $\frac{8}{10}$ meter of string, while Ricky has $\frac{3}{5}$. Who has a longer piece of string, Jake or Ricky?
- 2. Cloe studied her lesson for $\frac{3}{6}$ of an hour, while Cris studied for $\frac{6}{12}$ of an hour. Who studied longer, Cloe or Cris?

3. Mang Benito gathered $\frac{9}{21}$ kilogram of guavas and $\frac{3}{15}$ kilogram of sineguelas. What fruits did Mang Benito gather more?

Challenge!

Write the GCF of the given numbers in the inner circle for each set. Do it in your notebook.



F. References

Creag, Herminia C. *Real-Life Mathematics 4*. Manila: Abiva Publishing House, Inc., 2013.

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Answer Key for Math 4, Quarter 3 LC. No. 8

A. Look Back

Common Factor

- 1. 8
- 2. 15
- 3. 12
- 4. 10
- 5. 40

B. What's New

- 1. The weight of the fish is 900 grams.
- 2. The weight of the fruits is 1 kilogram and 800 grams.
- 3. What part of the kilogram is the weight of the fish?

$$\frac{900}{1000}$$
 or $\frac{9}{10}$

4. What is the part of the kilogram is the weight of the fruits? $1\frac{800}{1-1}$ or $1\frac{4}{1-1}$

$$\frac{1}{1000}$$
 or $1\frac{1}{5}$

C. Let's Try

1.
$$\frac{2}{4} = \frac{1}{2}$$

2. $\frac{2}{6} = \frac{1}{3}$
3. $\frac{2}{8} = \frac{1}{4}$

D. Let's Evaluate

Matching Type

Simplest Form

1. B	$1 \cdot \frac{8}{18} = \frac{9}{4}$
2. e	2. $\frac{12}{36} = \frac{1}{3}$
3. d	3. $\frac{10}{24} = \frac{5}{12}$
4. c	4. $\frac{6}{10} = \frac{3}{5}$
5. a	5. $\frac{14}{16} = \frac{7}{8}$

Illustrate



So, Jake's string is longer the Ricky's.

2. $\frac{3}{6}$ Cloe's sleep $\frac{6}{12} = \frac{1}{6}$ Cris' Sleep

So, Cloe sleeps more than Cris.

3. Mang Benito gathered more guavas.