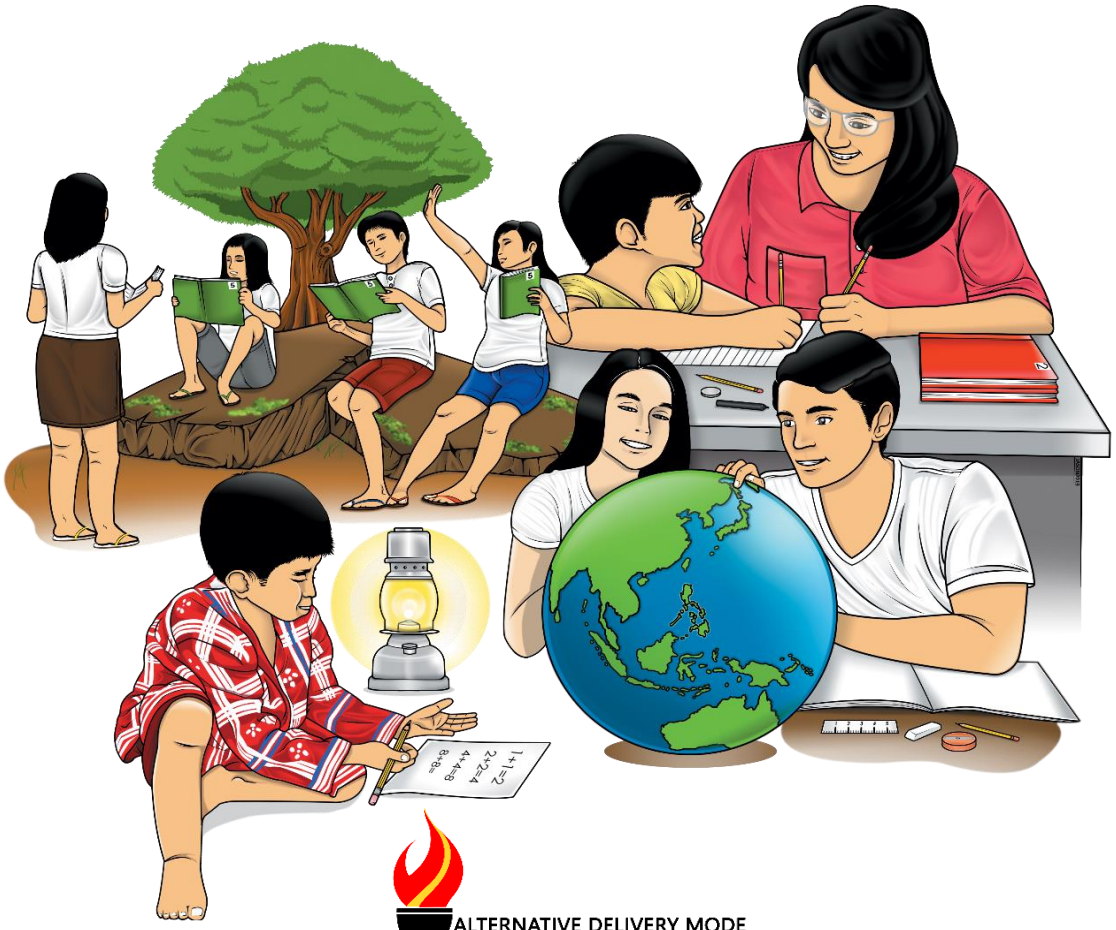
4

Mathematics
Quarter 2 – Module 4: Fractions



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4

Mathematics
Quarter 2 – Module 4: Fractions

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DEPARTMENT OF EDUCATION

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.

What I Need to Know

There are some quantities that cannot be represented by a whole number. A slice of cake and pizza, for example, cannot be represented by a whole number and this is the reason why we use fractions.

After going through this module, you are expected to:

1. identify proper fractions, improper fractions and mixed numbers;
2. change improper fractions to mixed numbers and vice versa; and
3. change fractions to lowest terms.

Lesson 1

Kinds of Fractions

What I Know

Let us try to see what you know about the new lesson.

Remember to use a separate sheet for your answers.

Identify the given numbers as proper fraction, improper fraction or mixed number.

1. $\frac{1}{3}$ _____
2. $\frac{7}{4}$ _____
3. $\frac{9}{12}$ _____
4. $\frac{15}{6}$ _____
5. $2\frac{5}{10}$ _____
6. $\frac{2}{4}$ _____
7. $\frac{5}{2}$ _____
8. $\frac{10}{13}$ _____
9. $1\frac{1}{2}$ _____
10. $\frac{6}{9}$ _____

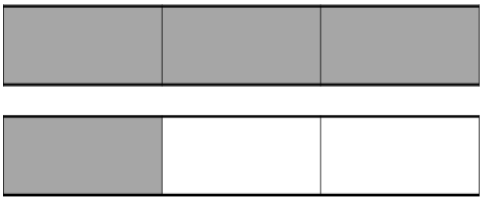
If you are done answering the activity, please go to the ***Answer Key*** on page 30 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. Hope you will do this until the end of this module.

What's In

Let us review first some of the concepts that can help you understand fractions.

A. Match the fractions in column A to the illustrations in column B. Write the letter of the correct answer.

Column A	Column B
1. $\frac{3}{4}$	a. 
2. $\frac{6}{5}$	b. 
3. $1\frac{2}{3}$	c. 
4. $\frac{4}{3}$	d. 
5. $\frac{4}{5}$	e. 

If you are done answering the activity, please go to the ***Answer Key*** on page 30 and check if your answers are correct.

Have fun in doing the activities in this module.

Notes to the Teacher

The activities may be supplemented and enhanced with some contextualized problems that will get the interest of the learners to perform well in activities about fractions.

What's New

Let us start learning the new concept with the help of this story problem.

Read and understand the problem, then answer the questions that follow.

Neo, Marjo and Mike decided to run as part of their daily exercise. Neo run $\frac{7}{8}$ kilometer, Marjo run $\frac{9}{8}$ kilometers while Mike run $1\frac{2}{8}$ kilometers. Who among the three runs the shortest distance?

What can you say about Neo, Marjo and Mike?

- They use to exercise daily to make their body strong and healthy.

What is asked in the problem?

- Who among the three runs the shortest distance?

What are the given facts that can help you solve the problem?

- $\frac{7}{8}$ kilometer, $\frac{9}{8}$ kilometers, and $1\frac{2}{8}$ kilometers

You can solve the problem by drawing a picture.

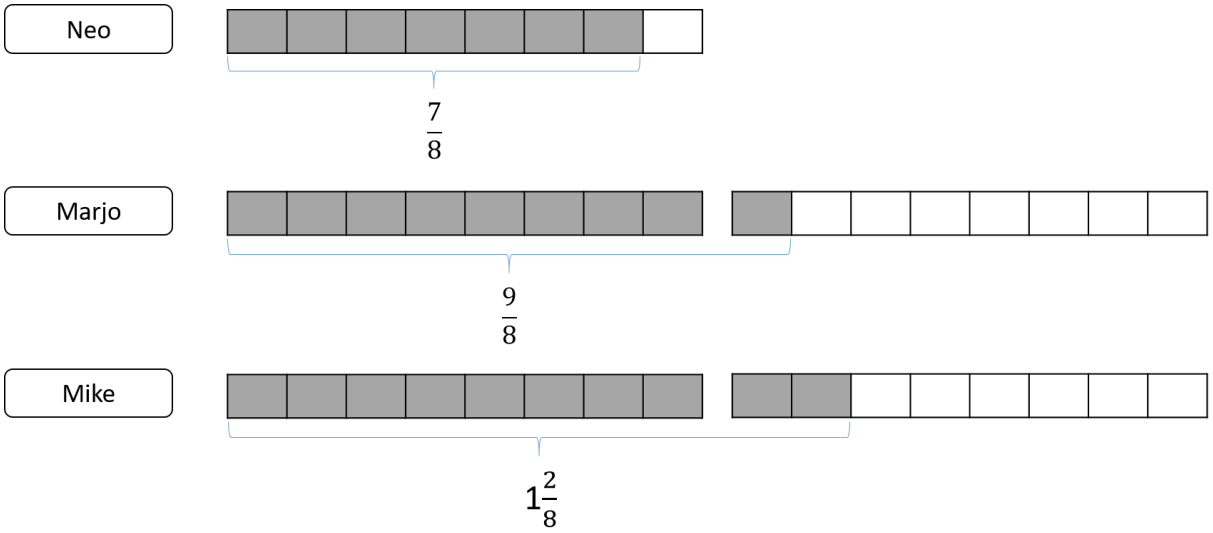
Try to answer the activity. Have patience and have fun!

We will find out on the next part of this module whether you answered the problem properly and correctly.

What is It

Let us try to compare the three fractions.

Observe the given figures.



Notice that $\frac{7}{8}$ is the shortest.

Therefore, Neo runs the shortest distance.

Three Kinds of Fractions:

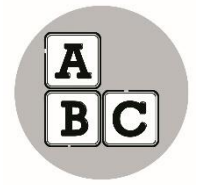
Notice that:

In the fraction $\frac{7}{8}$, the numerator is smaller than the denominator. It is a fraction less than 1. It is a ***proper fraction***.

In the fraction $\frac{9}{8}$, the numerator is bigger than the denominator. It is a fraction greater than 1. It is ***improper fraction***. A fraction whose numerator is equal to the denominator is also an improper fraction. It is a fraction equal to 1.

An example is $\frac{8}{8}$.

The fraction $1\frac{2}{8}$, contains a whole number and a proper fraction. It is a **mixed number**.



What's More

Let us see if you already know how to identify the different kinds of fractions.

Activity 1. Write the given fractions correctly in the appropriate column in the table.

$\frac{8}{7}$	$\frac{4}{8}$	$\frac{14}{12}$	$2\frac{3}{9}$	$\frac{18}{15}$	$\frac{16}{18}$	$8\frac{5}{6}$	$\frac{20}{8}$	$\frac{5}{12}$	$\frac{17}{18}$

Proper Fractions	Improper Fractions	Mixed Numbers

If you are done answering the activity, please go to the ***Answer Key*** on page 30 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. Hope you will do this until the end of this module.

What I Have Learned

You are doing great!

Always remember:

1. A proper fraction is a fraction whose numerator is less than the denominator.
2. An improper fraction is a fraction whose numerator is greater than or equal to the denominator.
3. A mixed number contains a whole number and a proper fraction.

What I Can Do

Let us see if you are now ready to solve this problem.

Read and understand the problem, then answer the questions that follow.

Cris bought fruits for his family. He bought $\frac{9}{8}$ kilograms of apple, $\frac{2}{4}$ kilogram of banana and $1\frac{1}{2}$ kilograms of orange. Which fruit did he buy most?

Which is proper fraction? Improper fraction? Mixed number?

1. What can you say about Cris? What kind of person is he?

2. Which fruit did he buy most?

3. Which is proper fraction? Improper fraction? Mixed number?

Assessment

You are now ready for the next activity.

A. Write ***P*** if the given is a proper fraction, ***I*** if it is an improper fraction, and ***M*** if it is a mixed number.

1. $\frac{7}{11}$
2. $7\frac{9}{10}$
3. $1\frac{3}{8}$
4. $\frac{15}{30}$
5. $\frac{9}{9}$
6. $\frac{26}{14}$
7. $\frac{12}{8}$
8. $\frac{3}{21}$
9. $\frac{6}{9}$
10. $10\frac{1}{4}$

If you are done answering the activity, please go to the ***Answer Key*** on page 30 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. Hope you will do this until the end of this module.

Additional Activities

Let us try another problem.

Answer the problem.

1. A vegetable vendor sells $3\frac{12}{15}$ kilograms of *ampalaya*, $\frac{13}{15}$ kilograms of *sayote* and $\frac{17}{3}$ kilograms of cabbage. Which vegetable did he sell the most?

Which fraction is proper? Improper? Mixed number?

Now that you are done, please check your answers using the ***Answer Key*** on page 30.

If you got all the problems correctly, you may now proceed to Lesson 2.

Otherwise, kindly review the lessons and ask the guidance of your teacher or learning facilitator.

Lesson 2

Changing Improper Fractions to Mixed Number and Vice Versa

What I Know

Let us try to see what you know about the new lesson.

Match the improper fraction in column A to its corresponding mixed number in column B. Write the letter of your answer.

A	B
1. $\frac{6}{5}$	*a.* $2\frac{1}{5}$
2. $\frac{9}{7}$	*b.* $1\frac{3}{10}$
3. $\frac{3}{2}$	*c.* $1\frac{1}{2}$
4. $\frac{11}{5}$	*d.* $1\frac{1}{5}$
5. $\frac{13}{10}$	*e.* $1\frac{2}{7}$
6. $\frac{5}{2}$	*f.* $1\frac{6}{9}$
7. $\frac{11}{7}$	*g.* $1\frac{2}{10}$
8. $\frac{10}{7}$	*h.* $1\frac{3}{7}$
9. $\frac{12}{10}$	*i.* $1\frac{4}{7}$
10. $\frac{15}{9}$	*j.* $2\frac{1}{2}$

If you are done answering the activity, please go to the ***Answer Key*** on page 31 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. Hope you will do this until the end of this module.

What's In

Let us review first some of the concepts that can help you understand fractions.

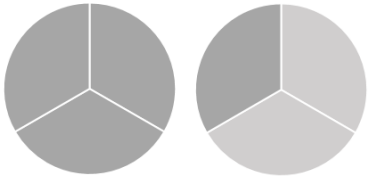
A. ***Circle*** the fractions that are less than 1, ***box*** the fractions that are greater than 1 and put a ***check*** mark to the fractions that are equal to 1.

1. 

$\frac{1}{2}$

2. 

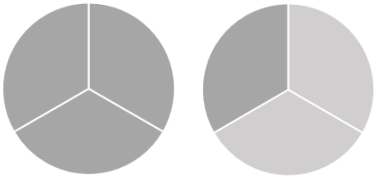
$\frac{4}{4}$

3. 

$\frac{4}{3}$

4. 

$\frac{1}{3}$

5. 

$1\frac{1}{3}$

If you are done answering the activity, please go to the ***Answer Key*** on page 31 and check if your answers are correct.

Have fun in doing the activities in this module.

What's New

Let us start learning the new concept with the help of this story problem.

Read and understand the problem, then answer the questions that follow.

Carla will serve $\frac{11}{5}$ cake to her visitors. How many whole cake and fraction part of cake will she serve?

What can you say about Carla? What kind of person is she?

- Carla loves to serve her visitors. She is very hospitable.

What is asked in the problem?

- The number of whole cake and fraction part of cake that she will serve her visitors.

What are the given facts that can help you solve the problem?

- $\frac{11}{5}$ cake

Try to answer the activity. Have patience and have fun!

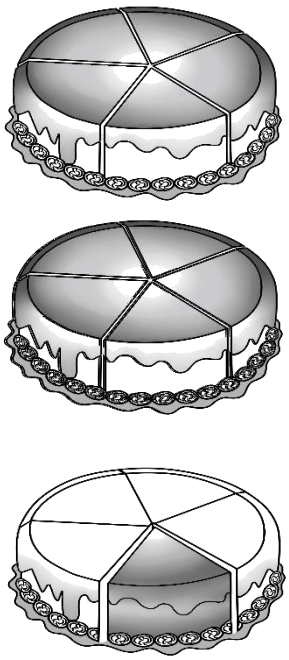
We will find out on the next part of this module whether you answered the problem properly and correctly.

What is It

You can solve the problem by drawing a picture.

Observe the given figures.

$\frac{11}{5}$



$\frac{5}{5}$ *or* 1 (If the numerator and denominator are the same, the fraction is equal to 1.)

$\frac{5}{5}$ *or* 1 (If the numerator and denominator are the same, the fraction is equal to 1.)

$\frac{1}{5}$

Notice that there are 2 whole cakes and $\frac{1}{5}$ of a cake.

We write it as $2\frac{1}{5}$ and read it as two and one-fifths.

So we say,

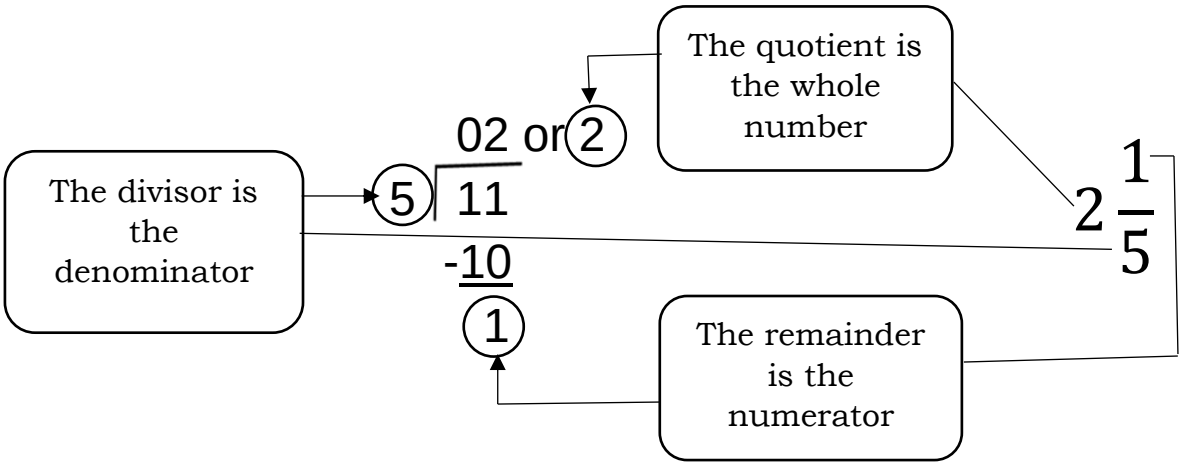
$$\frac{11}{5} = 2\frac{1}{5}$$

Improper Fraction to Mixed Numbers

You can also do it by computation.

Study the solution below.

Changing Improper Fraction to Mixed Number



To change improper fraction to mixed number:

1. divide the numerator by the denominator;

2. if the quotient has no remainder then the answer is simply the quotient itself. To represent it as fraction, use 1 as its denominator;

3. if the quotient has a remainder, then it can be expressed as mixed numbers:

   a. the quotient is the whole number;
   b. the remainder is the numerator; and
   c. the divisor is the denominator.

So, $\frac{11}{5}$ which is an improper fraction can be written as $2\frac{1}{5}$ in mixed number.

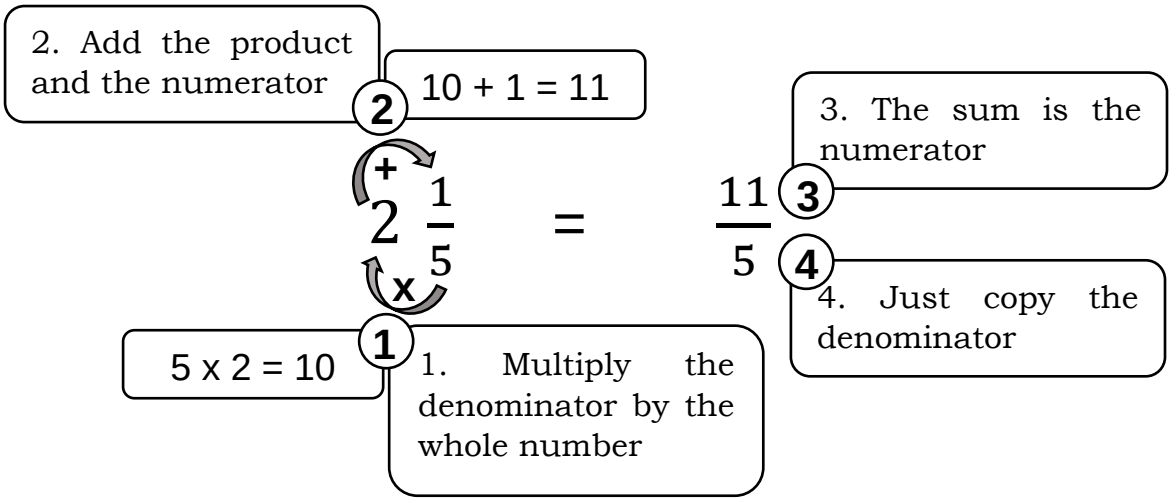
That is how we change improper fraction to mixed number.

Now, let us try doing it the other way around.

Change $2\frac{1}{5}$ to improper fraction.

Try to observe how it is done.

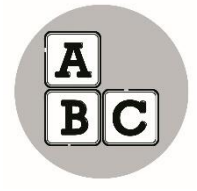
Changing Mixed Number to Improper Fraction



To change mixed number to improper fraction:

1. Multiply the denominator with the whole number;
2. Add the product to the numerator;
3. Write the sum as the numerator of the improper fraction; and
4. Copy the denominator.

Therefore, $2\frac{1}{5}$ which is a mixed number can be written as an improper fraction as $\frac{11}{5}$ and read as eleven-fifths.



What's More

Let us see if you already know how to change improper fraction to mixed number and mixed number to improper fraction.

Activity 1. Change the following improper fractions to mixed numbers by filling in the box with the correct number.

1. $\frac{5}{3} = 1\frac{2}{\quad}$
2. $\frac{7}{3} = 2\frac{\quad}{3}$
3. $\frac{9}{5} = 1\frac{\quad}{5}$
4. $\frac{8}{7} = 1\frac{1}{\quad}$
5. $\frac{9}{4} = 2\frac{\quad}{4}$

Activity 2. Change the following mixed numbers to improper fractions by filling in the box with the correct number.

1. $2\frac{2}{3} = \frac{8}{\quad}$
2. $1\frac{3}{4} = \frac{\quad}{4}$
3. $3\frac{1}{3} = \frac{10}{\quad}$
4. $1\frac{5}{6} = \frac{\quad}{6}$
5. $2\frac{7}{8} = \frac{\quad}{8}$

If you are done answering the activity, please go to the ***Answer Key*** on page 31 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

What I Have Learned

You are doing great!

Always remember:

1. To rewrite an improper fraction as mixed number, divide the numerator by the denominator, the quotient will be the whole number, the remainder will be the numerator and the divisor will be its denominator.

2. To rewrite a mixed number as an improper fraction, multiply the denominator by the whole number, then add the numerator to the product. Write the sum as the numerator and copy the given denominator.

What I Can Do

Let us see if you are now ready to solve this problem.

Read and understand the problem, then answer the questions that follow.

Mang Carlo tied their garden fence using a rope to safeguard their vegetables from animals. He used $\frac{7}{6}$ meters of rope. What is $\frac{7}{6}$ in mixed number?

1. What kind of fraction is $\frac{7}{6}$?
2. How will you change $\frac{7}{6}$ to mixed number?
3. What is $\frac{7}{6}$ in mixed number?
4. What can you say about Mang Carlo? What kind of person is he?

Assessment

You are now ready for the next activity.

A. Change the following improper fractions to mixed numbers.

1. $\frac{7}{4}$ 2. $\frac{8}{7}$ 3. $\frac{9}{5}$

B. Change the following mixed numbers to improper fractions.

4. $2\frac{2}{3}$ 5. $3\frac{3}{4}$ 6. $4\frac{1}{5}$

C. Match the given fractions in column A to those that are in column B.

A	B
7. $\frac{13}{4}$	a. $3\frac{6}{8}$
8. $\frac{16}{5}$	b. $3\frac{1}{5}$
9. $\frac{14}{3}$	c. $3\frac{1}{4}$
10. $\frac{30}{8}$	d. $4\frac{2}{3}$

If you are done answering the activity, please go to the ***Answer Key*** on page 31 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

Additional Activities

Let us try some more. Solve each problem.

1. How many fourths are there in $2\frac{3}{4}$?
2. How many fifths are there in $6\frac{1}{5}$?

Now that you are done with the lesson, please check your answers using the ***Answer Key*** on page 31.

If you got all the problems correctly, you may now proceed to Lesson 3.

Otherwise, kindly review the lesson and ask the guidance of your teacher or learning facilitator.

Lesson 3

Changing Fractions to Lowest Terms

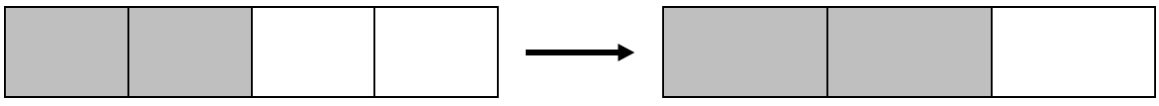
Even if a fraction looks different from another fraction, they may actually represent the same amount only that one of the fractions has reduced terms compared to the other. You may need to reduce the terms of fractions to work with them in an equation.

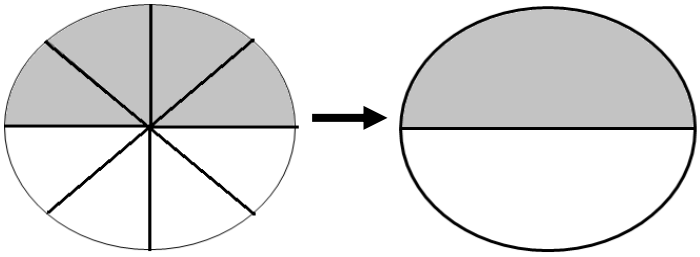
Reducing fractions to lowest terms involves division, thus you will need your prior knowledge on division. In this module, you will learn how to change fraction to its lowest term by dividing both the numerator and denominator with their Greatest Common Factor (GCF). You will be reminded also of the different methods of getting the GCF.

What I Know

A. Study each pair of illustrations below then check the number that represents the same fraction.

1. 

2. 

3. 

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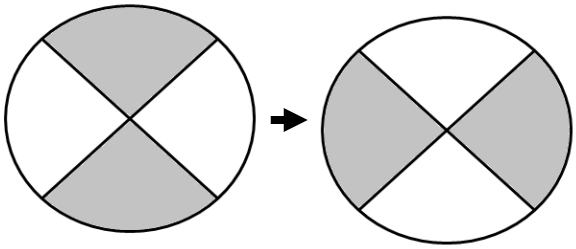

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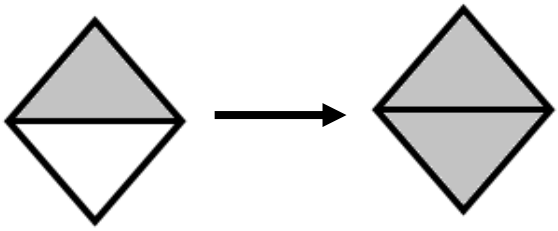


B. Fill in the box with the correct numerator or denominator.

6) $\frac{4}{16} = \frac{\square}{4}$

7) $\frac{15}{21} = \frac{\square}{7}$

8) $\frac{9}{12} = \frac{\square}{4}$

9) $\frac{12}{15} = \frac{4}{\square}$

10) $\frac{24}{28} = \frac{6}{\square}$

If you are done answering the activity, please go to the ***Answer Key*** on page 32 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

What's In

Let us review your previous lesson in getting the GCF of a pair of numbers using the different methods: Listing Method, Continuous Division and Prime Factorization.

Find the GCF of 3 and 18.

a. by Listing Method:

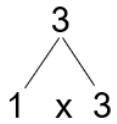
Factor of 3: 1, 3
Factors of 18: 1, 2, 3, 6, 9, 18
GCF: 3

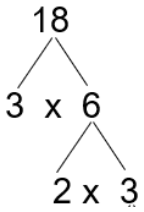
b. by Continuous Division

3 | 3 18
1 6

GCF: 3

c. by using Prime Factorization, cancellation of common prime factors, then multiplying the remaining factor to get the answer





List down the prime factors of 3 and 18.

3 = 3
18 = 3 x 2 x 3

Multiply the common prime factors of 3 and 18 to get the GCF.

3 = 3
18 = 3 x 2 x 3

3

GCF: 3

Find the GCF of the following numbers:

1) 12 and 18
2) 16 and 48
3) 12 and 24
4) 18 and 27
5) 14 and 42

If you are done answering the activity, please go to the ***Answer Key*** on page 32 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. Hope you will do this until the end of this module.

What's New

EXPLORE AND DISCOVER

Every Saturday morning, Kylie helps Greg clean their house for 2 hours. What fraction of the day do they spend on this? Express your answer in lowest term.

What did Kylie and Greg do every Saturday morning?

- They help in cleaning their house every Saturday morning.

How many hours do they spend in cleaning the house?

- They spent 2 hours in cleaning their house.

How will you describe Kylie and Greg?

- They are responsible children.

Is it good to help your parents do the household chores? Why?

- Yes, because it is one way to show to our parents that we are grateful for all the good things they do to us.

Aside from cleaning the house, what other chores can we do at home?

- The other chores we can do at home are washing the dishes, watering the plants, and feeding our pets.

What is asked in the problem? How will you solve it?

- The fraction of the day they spent in cleaning the house.

What is It

READ AND LEARN MORE

To answer the problem presented above, you have to write the fractional part spent cleaning the house then express it to lowest term. To reduce the fraction to lowest term, you have to get the GCF of the numerator and the denominator.

Let us analyze the problem:

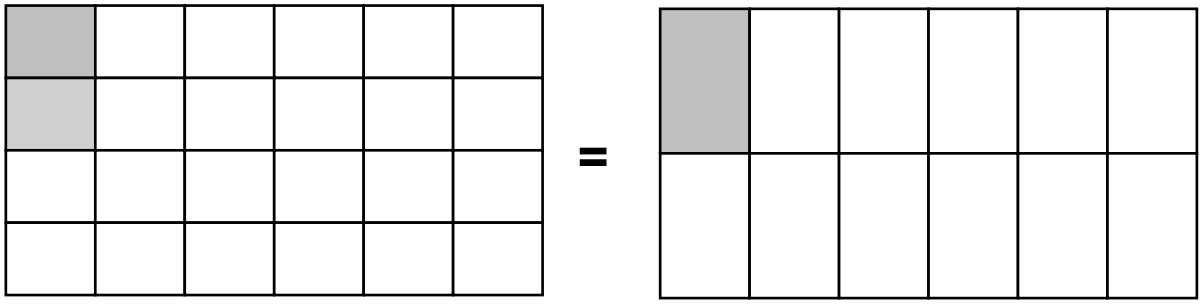
1. Analyze the given facts:

   How many hours did they spend cleaning the house?
   - Kylie and Greg spent 2 hours in cleaning the house.

2. Answer the questions stated:
   How many hours in a day?
   - They spent **2** hours in **24** hours.

3. Express the answer into fraction.
   - $\frac{2}{24}$

Now let us visualize the fraction presented to understand clearly the problem.



$\frac{2}{24}$ = $\frac{1}{12}$

Based from the illustration above, we can say that $\frac{2}{24}$ is the same with $\frac{1}{12}$ thus this becomes the reduced fraction or the lowest term. We can reduce a fraction to its lowest term by dividing the numerator and the denominator with their Greatest Common Factor (GCF).

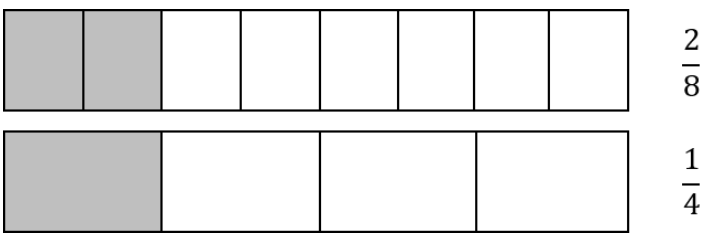
2 is the GCF of 2 and 24

$$\frac{2 \div 2}{24 \div 2} = \frac{1}{12}$$

To get the GCF of both the numerator and the denominator, you can use any of the methods discussed earlier – Listing Method, Continuous Division, and Prime Factorization.

Here are the other examples, study them carefully and be ready for the activities later.

Example 1:
Observe the shaded parts of the two sheets having the same size.



$\frac{2}{8}$

$\frac{1}{4}$

$\frac{2 \div 2}{8 \div 2} = \frac{1}{4}$ GCF

Therefore, there are 2 parts out of the 8 parts to get ¼ of the sheet.

Example 2:

Give the simplest form of each fraction.

a. $\frac{20}{28}$ ⟶ The GCF of 20 and 28 is 4.

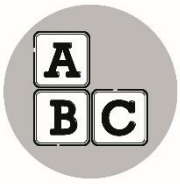
$$\frac{20}{28} = \frac{20 \div 4}{28 \div 4} = \frac{5}{7}$$

b. $\frac{36}{96}$ ⟶ The GCF of 36 and 96 is 12.

$$\frac{36}{96} = \frac{36 \div 12}{96 \div 12} = \frac{3}{8}$$

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

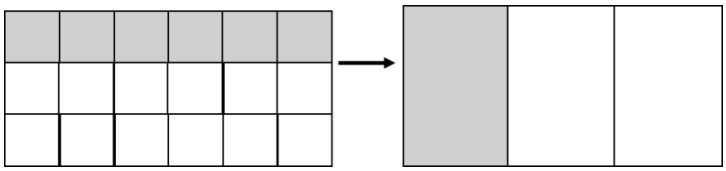
Now, try to change more fractions to its lowest term in the next exercises.



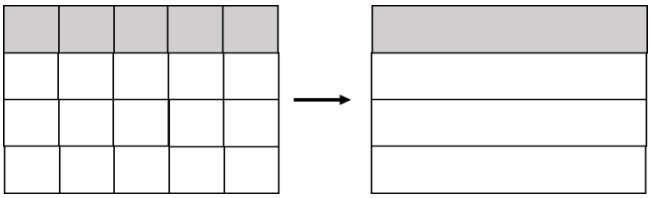
What's More

Activity 1:

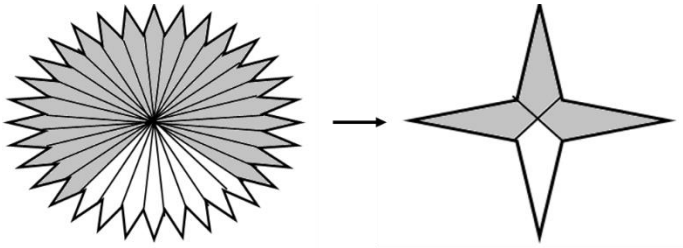
Name the shaded parts of the fraction on the right side then write inside the box TRUE if it shows fraction in lowest term and FALSE if it does not.

1. 

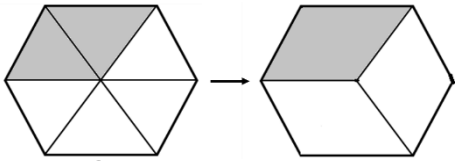
$\frac{6}{18}$ _____

2. 

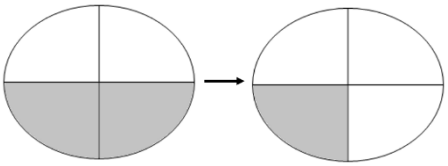
$\frac{5}{20}$ _____

3. 

$\frac{24}{32}$ _____

4. 

$\frac{2}{6}$ _____

5. 

$\frac{2}{4}$ _____

Activity 2:

Find the lowest term of each fraction. Choose your answer from the choices given. Each answer has a corresponding letter. Write the letter on the blank to get the answer to the question below.

Who created the 4-step plan in problem solving?

_____	_____	_____	_____	_____
1. $\frac{4}{7}$	2. $\frac{7}{21}$	3. $\frac{3}{12}$	4. $\frac{5}{10}$	5. $\frac{8}{40}$

A – $\frac{1}{5}$	**Y -** $\frac{1}{2}$	**P -** $\frac{4}{7}$	**L -** $\frac{1}{4}$	**O -** $\frac{1}{3}$

Activity 3:

Match the fraction in Column A with its lowest term in Column B.

Column A	Column B
1. $\frac{8}{24}$	a. $\frac{3}{7}$
2. $\frac{5}{40}$	b. $\frac{1}{2}$
3. $\frac{12}{28}$	c. $\frac{1}{3}$
4. $\frac{30}{48}$	d. $\frac{1}{8}$
5. $\frac{28}{56}$	e. $\frac{5}{8}$

If you are done answering the activity, please go to the ***Answer Key*** on page 32 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

What I Have Learned

Remember!

A fraction is in its lowest term if the numerator and the denominator have no other common factor except 1.

To reduce a fraction to its lowest term, divide the numerator and denominator by their GCF (Greatest Common Factor).

What I Can Do

APPLY YOUR SKILLS

Read each problem then solve.

1. Every Saturday, Claire and her mother go to the market to buy food. On each day in the market, they spend 3 hours including the travel time. What fraction of the day is used in going to the market to buy food every Saturday? Express your answer in lowest term.
2. A farmer planted $\frac{7}{21}$ of his farm with *pechay*. How many thirds of the farm was planted with *pechay*?

If you are done answering the activity, please go to the ***Answer Key*** on page 32 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

Assessment

Change the following fractions to its lowest terms.

1. $\frac{9}{15}$ 2. $\frac{4}{10}$ 3. $\frac{12}{16}$ 4. $\frac{15}{20}$ 5. $\frac{30}{35}$

6. $\frac{10}{25}$ 7. $\frac{15}{18}$ 8. $\frac{9}{18}$ 9. $\frac{6}{24}$ 10. $\frac{7}{21}$

If you are done answering the activity, please go to the ***Answer Key*** on page 32 and check if your answers are correct.

Thank you for your honesty in answering and checking your work. I hope you will do this until the end of this module.

Additional Activities

Fill in the box with the correct numerator or denominator to get the lowest term of each fraction.

1. $\frac{26}{48} = \frac{\quad}{24}$

2. $\frac{20}{25} = \frac{\quad}{5}$

3. $\frac{14}{18} = \frac{7}{\quad}$

4. $\frac{18}{27} = \frac{\quad}{3}$

5. $\frac{24}{28} = \frac{6}{\quad}$

Now that you are done, please check your answers using the ***Answer Key*** on page 32.

If you got all the problems correctly, you may now proceed to the next module.

Otherwise, kindly review the lesson and ask the guidance of your teacher or learning facilitator.

Answer Key

LESSON 1: KINDS OF FRACTIONS

What I Know

1. Proper Fraction
2. Improper Fraction
3. Proper Fraction
4. Improper Fraction
5. Mixed Number
6. Proper Fraction
7. Improper Fraction
8. Proper Fraction
9. Mixed Number
10. Proper Fraction

What's In

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

What's More

Proper Fraction	Improper Fraction	Mixed Number
$\frac{4}{8}$ $\frac{16}{18}$ $\frac{5}{12}$ $\frac{17}{18}$	$\frac{8}{7}$ $\frac{14}{12}$ $\frac{18}{15}$ $\frac{20}{8}$	$2\frac{3}{9}$ $8\frac{5}{6}$

What I Can Do

1. Cris loves his family. He is thoughtful.
2. Orange
3. Proper Fraction - $\frac{2}{4}$

   Improper Fraction - $\frac{9}{8}$

   Mixed Number - $1\frac{1}{2}$

Assessment

1. P
2. M
3. M
4. P
5. I
6. I
7. I
8. P
9. P
10. M

Additional Activities

1. Cabbage

   Proper Fraction - $\frac{13}{15}$

   Improper Fraction - $\frac{17}{3}$

   Mixed Number - $3\frac{12}{15}$

LESSON 2: CHANGING IMPROPER FRACTION TO MIXED NUMBER AND VICE VERSA

What I Know

1. d	6. j
2. e	7. i
3. c	8. h
4. a	9. g
5. b	10. f

What's In

What's More

Activity 1	**Activity 2**
1. 3	1. 3
2. 1	2. 7
3. 4	3. 3
4. 7	4. 11
5. 1	5. 23

What I Can Do

1. Improper Fraction
2. Divide 7 by 6, use the quotient as the whole number and then use the remainder as the numerator.
3. $1\frac{1}{6}$
4. He is always prepared. He is hardworking.

Assessment

A	**B**	**C**
1. $1\frac{3}{4}$	4. $\frac{8}{15}$	7. c
2. $1\frac{1}{7}$	5. $\frac{4}{21}$	8. b
3. $1\frac{4}{5}$	6. $\frac{4}{5}$	9. d
		10. a

Additional Activities

1. $\frac{11}{4}$
2. $\frac{31}{5}$

LESSON 3: CHANGING FRACTIONS TO LOWEST TERMS

What I Know

A.

1. /
2. /
3. /
4. /
5. /

B. *(page 2)*

6) $\frac{4}{16} = \frac{\boxed{1}}{4}$

7) $\frac{15}{21} = \frac{\boxed{5}}{7}$

8) $\frac{9}{12} = \frac{\boxed{3}}{4}$

9) $\frac{12}{15} = \frac{4}{\boxed{5}}$

10) $\frac{24}{28} = \frac{6}{\boxed{7}}$

What's In

Find the GCF of the following numbers.

1) 12 and 18 = 6
2) 16 and 48 = 16
3) 12 and 24 = 12
4) 18 and 27 = 9
5) 14 and 42 = 14

What's More

Activity 1:

1. True $\frac{1}{3}$
2. True $\frac{1}{4}$
3. True $\frac{3}{4}$
4. True $\frac{1}{3}$
5. False $\frac{1}{4}$

Activity 2:

P	O	L	Y	A
1. $\frac{4}{7}$	2. $\frac{7}{21}$	3. $\frac{3}{12}$	4. $\frac{5}{10}$	5. $\frac{8}{40}$

Activity 3:

1. C
2. D
3. A
4. E
5. B

What I Can Do
Apply Your Skills

1) $\frac{3}{24}$ or $\frac{1}{8}$

2) $\frac{7}{21}$ or $\frac{1}{3}$

Assessment

1. $\frac{9}{15} = \frac{3}{5}$ 2. $\frac{4}{10} = \frac{2}{5}$ 3. $\frac{12}{16} = \frac{3}{4}$ 4. $\frac{15}{20} = \frac{3}{4}$ 5. $\frac{30}{35} = \frac{6}{7}$

6. $\frac{2}{5}$ 7. $\frac{5}{6}$ 8. $\frac{1}{2}$ 9. $\frac{1}{4}$ 10. $\frac{1}{3}$

Additional Activities:

1. $\frac{26}{48} = \frac{13}{24}$ 2. $\frac{20}{25} = \frac{4}{5}$ 3. $\frac{14}{18} = \frac{7}{9}$

4. $\frac{18}{27} = \frac{2}{3}$ 5. $\frac{24}{28} = \frac{6}{7}$

References

K to 12 Mathematics Curriculum Guide, August 2016

Tabilang, Alma R. et. Al, 2015, **Mathematics 4 Learner's Material** pp. 103-111, Department of Education

Tabilang, Alma R. et. Al, 2015, **Mathematics 4 Teacher's Guide** pp. 136-141, Department of Education

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