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Lesson Exemplar for Mathematics 5

Quarter 2

Lesson

2

Lesson Exemplar for Mathematics Grade 5
Quarter 2: Lesson 2 (Week 2)
SY 2024-2025

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MATHEMATICS/QUARTER 2/ GRADE 5

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	Division of Fractions
B. Performance Standards	Divide fractions
C. Learning Competencies and Objectives	<i>Learning Competency</i> 1. Divide fractions using models. 2. Divide a fraction by a fraction. 3. Solve multi-step problems involving division of fractions that may or may not involve the other operations with fractions.
D. Content	1. Divide fractions using models. 2. Divide a fraction by another fraction. 3. Solve multi-step problems involving division of fractions.
E. Integration	21 st Century Skill: Critical Thinking and Collaboration, Measurement in Cooking, Health and Wellness

II. LEARNING RESOURCES
<p>Agtarap, S. M., Agtarap, R. I., Guerrero, R. R., Subong, R. R. (2016). <i>Phoenix Math for the 21st Century Learners Grade 6</i>. Phoenix Publishing House, Inc. ISBN: 978-971-06-3902-1</p> <p>Bennagen, L. C. & Sibbaluca, L. M. (2022). <i>Math World 6 (2nd Ed)</i>. C & E Publishing, Inc. ISBN: 978-971-98-1770-3</p> <p>Cruz, Y. F. & Inere, R. A. (2015). <i>Exploring Math Possibilities 6</i>. Don Bosco Press, Inc. ISBN: 978-971-9978-82-4</p> <p>Laforteza, R. A. & Santiago, J. P. (2015). <i>Exploring Math Possibilities 5</i>. Don Bosco Press, Inc. ISBN: 978-971-9978-81-7</p> <p>Periwinkle (2019, April 20). <i>Division of Fraction and Whole Number or Fraction / Mathematics Grade 5</i>/[Video File]. Youtube. https://www.youtube.com/watch?v=1BW9DSNAyOE</p>

Suarez, J. V. (2019). *Math Beyond Time 5*. JO-ES Publishing House, Inc. ISBN: 978-971-655-611-7

Suarez, J. V. (2019). *Math Beyond Time 6*. JO-ES Publishing House, Inc. ISBN: 978-971-655-612-4

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	<p>DAY 1</p> <p>1. Short Review</p> <p>Before we move to our next lesson, let us first recall what is the rule for multiplying fractions. In multiplying fractions, we simply multiply the numerator to the numerator of another fraction and do the same on their denominators. To revisit the skill that we already learned, let us solve the following.</p> <p>Perform the indicated operation:</p> <div style="display: flex; justify-content: space-between;"> <div>a. $\frac{1}{2} \times \frac{3}{4}$</div> <div>d. $8 \times \frac{1}{4}$</div> </div> <div style="display: flex; justify-content: space-between;"> <div>b. $\frac{2}{3} \times \frac{4}{5}$</div> <div>e. $3\frac{1}{3} \times \frac{3}{5}$</div> </div> <div>c. $\frac{7}{10} \times 1\frac{1}{2}$</div> <p>The teacher may ask the following guide questions: a. How do we multiply fractions? b. What do we do when we multiply a whole number by a fraction? c. What do we do when we multiply a mixed fraction with a fraction?</p> <p>2. Feedback (Optional)</p>	<p>The teacher will start by letting the students recall their concepts on multiplying fractions.</p> <p>After this, the teacher will provide a short review on performing multiplying fractions.</p> <p>The teacher may choose to make the guide questions as a group activity where the class is divided into groups and each group will compete to get the correct answer. The group with the highest score will be the winner.</p>
B. Establishing Lesson Purpose	<p>DAY 1</p> <p>1. Lesson Purpose</p> <p>Previously, we already learned how to add, subtract, and multiply fractions. Suppose we are to solve this problem: A $\frac{1}{2}$ meter rope will be cut from a 4-meter-long rope. How many pieces of small ropes can be cut? After reading and understanding the problem, we can say that this problem requires us to divide the longer rope into smaller pieces of $\frac{1}{2}$ meters length. This needs us to apply the division operation in fraction.</p>	<p>In this part of the lesson, the teacher may utilize a guided question in order to gather the observation of the students with regards to the quotient of each examples. The teacher may end this part by asking the students if it is possible to determine if a number is divisible by another</p>

	<p>Do you think division of fraction is somehow related to multiplication of fractions?</p> <p>2. Unlocking Content Vocabulary</p> <p>In order for us to divide fractions, let us first know the concept of reciprocals. The reciprocal of a whole number or a fraction is simply its inverse. To take the reciprocal of a whole number or a fraction, we simply have to write it “upside down”. This means that the numerator of the original fraction will become the denominator of the reciprocal fraction and, in turn, the denominator of the original fraction will become its numerator. For example:</p> <p style="text-align: center;">The reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$.</p> <p>As we can see, the original fraction which is $\frac{2}{3}$ is written “upside down” to get $\frac{3}{2}$. The numerator of the original fraction which is 2 became the denominator of the reciprocal and the denominator of the original fraction became the numerator of the reciprocal.</p> <p>Determine the reciprocal of the following fractions:</p> <p>a. $\frac{5}{3}$ b. $\frac{6}{11}$ c. 8 d. $\frac{1}{5}$ e. $\frac{3}{12}$</p>	<p>number without undergoing the long division process.</p> <p>In this part of the lesson, the teacher will introduce the concept of reciprocals of fractions as pre-requisite knowledge to divide fractions. The teacher may ask the students the provided examples to evaluate if the concept was understood.</p>
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C. Developing and Deepening Understanding

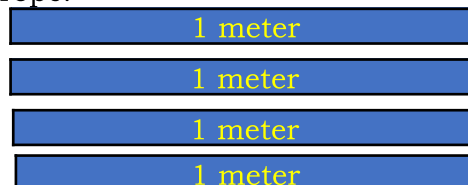
SUB-TOPIC 1: Divide fractions using models.

1. Explicitation

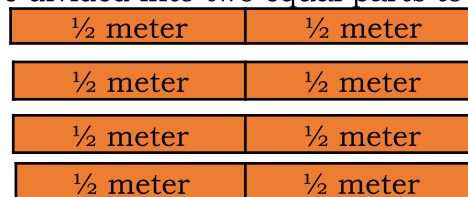
Let us go back to our problem earlier.

A $\frac{1}{2}$ meter rope will be cut from a 4-meter-long rope. How many pieces of small ropes can be cut?

We can visualize this problem using a fraction bar. Each fraction bar will represent a meter of rope.



Each rectangle can be divided into two equal parts to create $\frac{1}{2}$ parts.



From the resulting fraction bars, we can say that 8 smaller ropes with lengths of $\frac{1}{2}$ meter can be created from a 4-meter-long rope. In equation, that is:

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

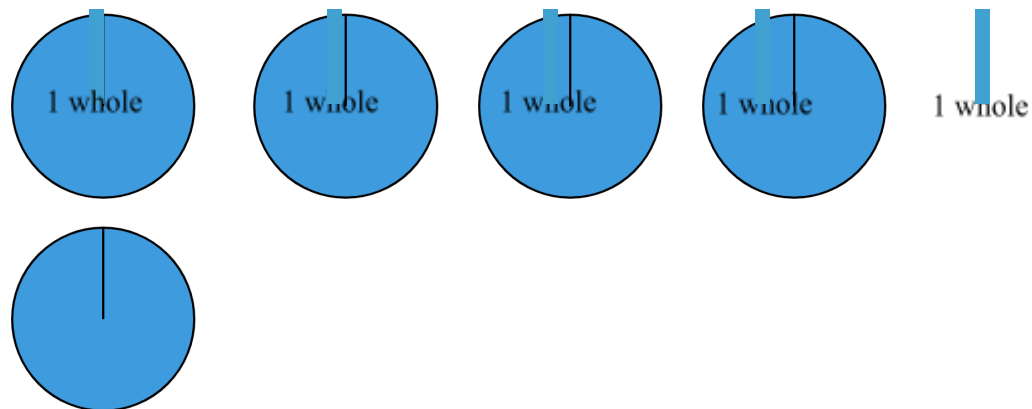
Let us try another problem.

Liza bought five pizzas. She wants to give each of her friends $\frac{2}{3}$ slice. How many of her friends can eat the pizza?

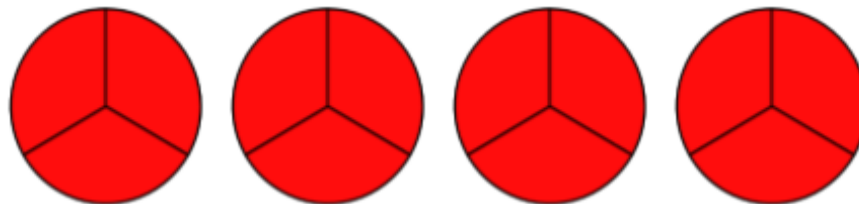
For us to solve this, let us use a pie diagram to visualize the problem. Each pie diagram represents 1 pizza.

In this part of the lesson, the teacher will show the students how to use models (fraction bar and pie diagram) in visualizing and solving problems that involves division of fractions. The teacher may process the activity by asking the following questions:

- If each whole fraction bar will represent a meter of rope, how many whole fraction bars should we draw?
- Since we are to create $\frac{1}{2}$ parts, how many parts should we divide each fraction bar?
- How many halves did we make based on the diagram?



Let us divide each pizza into three to create $\frac{1}{3}$ parts.



On our diagram, the pie is only portioned into thirds. Going back to our problem, each friend must receive $\frac{2}{3}$ slice. Therefore, counting two one-thirds at a time, we can say that there are 6 friends that can receive $\frac{2}{3}$ slice of pizza. In an equation, that is:

$$4 \div \frac{2}{3} = 6$$

2. Worked Example

Perform the following division of fractions using a diagram.

1. $3 \div \frac{1}{4}$

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

3. $2 \div \frac{1}{6}$

4. $3 \div \frac{3}{4}$

5. $4 \div \frac{2}{5}$

3. Lesson Activity (Refer to Worksheet 1)

Answer to Activity 1:

In this part of the lesson, the teacher may divide the class into pairs or triads. After giving the students an ample time to model each operation, volunteers will be called out to show their solutions on the board.

Answer: (Worked example)

1. $3 \times \frac{4}{1} = 12$

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

3. $2 \times \frac{6}{1} = 12$

4. $3 \times \frac{4}{3} = 4$

5. $4 \times \frac{5}{2} = 10$

In Activity 1, the teacher assumes that the students already gained mastery of the concept of dividing fractions using models (fraction bar or pie diagram). The teacher may encourage students to answer and complete the wheel individually or it can be done in dyad.

FIRST WHEEL:

- 1.
- $7 \div 14 = 28$
2. $4 \div 14 = 16$
3. $5 \div 14 = 20$
4. $6 \div 14 = 24$

SECOND WHEEL:

1. $2 \div 23 = 3$
2. $4 \div 23 = 6$
3. $6 \div 23 = 9$
4. $8 \div 23 = 12$

DAY 2**SUB-TOPIC 2: Divide a fraction by another fraction.****1. Explicitation**

The class will be divided into 4 groups. Each group will have to perform the division of fractions using their given models.

Group 1: $7 \div \frac{1}{2}$ (Fraction Bar) Group 2: $8 \div \frac{2}{3}$ (Pie Diagram)

Group 3: $4 \div \frac{1}{4}$ (Pie Diagram) Group 4: $6 \div \frac{3}{4}$ (Fraction Bar)

Now let us fill in our table with data from our activity.

Number Sentence	Dividend	Reciprocal of the Divisor	Answer/ Quotient
1. $7 \div \frac{1}{2}$			
2. $8 \div \frac{2}{3}$			
3. $4 \div \frac{1}{4}$			
4. $6 \div \frac{3}{4}$			

After filling out our table, it will look like this:

Number Sentence	Dividend	Reciprocal of the Divisor	Answer/ Quotient
1. $7 \div \frac{1}{2}$	7	2	14
5. $8 \div \frac{2}{3}$	8	$3/2$	12
6. $4 \div \frac{1}{4}$	4	4	16
7. $6 \div \frac{3}{4}$	6	$4/3$	8

DAY 2

In this part of the lesson, the teacher will guide the students to discover the rule in dividing fractions by completing the table. The teacher may ask the class the following questions:

- a. What is the dividend in the given number sentence?
- b. What is the divisor in the given number sentence?
- c. What is the reciprocal of the divisor? How did you get it?
- d. Upon observing the table, what do you think is the relationship of the quotient that we get by using a model and the dividend and the reciprocal of the divisor?

In this part of the lesson, the teacher may recall the concept of converting improper fractions to mixed fraction and vice versa. Such recall of concept

From the table, we can notice that the answer that each item have is equal to the product of the dividend and the reciprocal of the divisor. This leads us to the steps to divide fractions.

a. Dividing a whole number by a fraction, a fraction by a whole number, or a fraction by another fraction.

To divide a whole number by a fraction, a fraction by a whole number, or a fraction by another fraction, we follow the following steps:

Step 1: Identify the divisor and take its reciprocal.

Step 2: Multiply the reciprocal to the original dividend. Reduce to lowest term, if possible.

Worked Examples:

Find the quotient of the following: 1. $8 \div \frac{2}{3}$ 2. $\frac{4}{5} \div 2$ 3. $\frac{6}{7} \div \frac{3}{5}$

Answer:

1. $8 \div \frac{2}{3}$

Step 1: Identify the divisor and take its reciprocal.

From the given, our divisor is $\frac{2}{3}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{3}{2}$.

Step 2: Multiply the reciprocal to the original dividend. Take note that we can put one (1) as a denominator for any whole number since it does not change the value of the given whole number.

$$8 \div \frac{2}{3} = \frac{8}{1} \times \frac{3}{2} = \frac{\cancel{8}}{1} \times \frac{3}{\cancel{2}} = \frac{12}{1} \text{ or } 12$$

As we can see, the answer we derived from performing the operation is the same as our answer using the model.

2. $\frac{4}{5} \div 2$

Step 1: Identify the divisor and take its reciprocal.

From the given, our divisor is 2. Take note that we can put one (1) as a denominator for any whole number since it does not change the value of the given whole number, thus giving us $\frac{2}{1}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{1}{2}$.

Step 2: Multiply the reciprocal to the original dividend. In equation:

$$\frac{4}{5} \div 2 = \frac{4}{5} \times \frac{1}{2} = \frac{\cancel{4}}{5} \times \frac{1}{\cancel{2}} = \frac{2}{5}$$

may be done while showing the following examples.

Hence, the quotient when we divide $\frac{4}{5}$ by 2 is $\frac{2}{5}$.

3. $\frac{6}{7} \div \frac{3}{5}$

Step 1: Identify the divisor and take its reciprocal.

From the given, our divisor is $\frac{3}{5}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{5}{3}$.

Step 2: Multiply the reciprocal to the original dividend. In equation:

$$\frac{6}{7} \div \frac{3}{5} = \frac{6}{7} \times \frac{5}{3} = \frac{\cancel{6}}{7} \times \frac{5}{\cancel{3}} = \frac{10}{7} = 1\frac{3}{7}$$

Hence, the quotient when we divide $\frac{6}{7}$ by $\frac{3}{5}$ is $1\frac{3}{7}$.

b. Dividing a mixed fraction with another fraction or mixed fraction.

To divide a mixed fraction with another fraction or mixed fraction, we follow the following steps:

Step 1: Convert mixed fractions to improper fractions.

Step 2: Identify the divisor and take its reciprocal.

Step 3: Multiply the reciprocal to the original dividend. Reduce to lowest term, if possible.

Examples:

Find the quotient of the following: 1. $3\frac{3}{4} \div \frac{1}{4}$ 2. $9 \div 1\frac{1}{2}$ 3. $7\frac{1}{3} \div 2\frac{1}{5}$

Answer:

1. $3\frac{3}{4} \div \frac{1}{4}$

Step 1: Convert mixed fractions to improper fractions.

From the given, we have a mixed fraction which is $3\frac{3}{4}$. Converting to improper fraction, we will have $\frac{15}{4}$.

Step 2: Identify the divisor and take its reciprocal.

From the given, our divisor is $\frac{1}{4}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{4}{1}$.

Step 3: Multiply the reciprocal to the original dividend. In equation:

$$3\frac{3}{4} \div \frac{1}{4} = \frac{15}{4} \times \frac{4}{1} = \frac{15}{\cancel{4}} \times \frac{\cancel{4}}{1} = \frac{15}{1} \text{ or } 15$$

Hence, the quotient when we divide $3\frac{3}{4}$ by $\frac{1}{4}$ is 15.

2. $9 \div 1\frac{1}{2}$

This lesson activity is suggested to be conducted on the 2nd day. This can be answered individually or in pairs.

Answer: (Worked Example)

1. $10 \times \frac{5}{2} = 25$

2. $\frac{4}{7} \times \frac{1}{4} = \frac{1}{7}$

3. $\frac{5}{8} \times \frac{8}{1} = 5$

4. $\frac{21}{4} \times \frac{4}{3} = 7$

5. $12 \times \frac{3}{7} = \frac{36}{7} \text{ or } 5\frac{1}{7}$

6. $\frac{33}{5} \times \frac{5}{12} = \frac{11}{4} \text{ or } 2\frac{3}{4}$

This part of the lesson may be given to the students as a formative assessment or quiz. It may also be given as an asynchronous task if there is no enough time to conduct within the teaching time.

Step 1: Convert mixed fractions to improper fractions.

From the given, we have a mixed fraction which is $1\frac{1}{2}$. Converting to improper fraction, we will have $\frac{3}{2}$.

Step 2: Identify the divisor and take its reciprocal.

From the given, our divisor is $1\frac{1}{2}$ or $\frac{3}{2}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{2}{3}$.

Step 3: Multiply the reciprocal to the original dividend. In equation:

$$9 \div 1\frac{1}{2} = 9 \div \frac{3}{2} = \frac{9}{1} \times \frac{2}{3} = \frac{9}{1} \times \frac{2}{3} = \frac{6}{1} \text{ or } 6$$

Hence, the quotient when we divide 9 by $1\frac{1}{2}$ is 6.

3. $7\frac{1}{3} \div 2\frac{1}{5}$

Step 1: Convert mixed fractions to improper fractions.

From the given, we have two mixed fractions: $7\frac{1}{3}$ and $2\frac{1}{5}$. Converting both fractions to improper fractions, we will have:

$$7\frac{1}{3} = \frac{22}{3} \quad \text{and} \quad 2\frac{1}{5} = \frac{11}{5}$$

Step 2: Identify the divisor and take its reciprocal.

From the given, our divisor is $2\frac{1}{5}$ or $\frac{11}{5}$. To take its reciprocal, we just have to write it “upside down” which will give us $\frac{5}{11}$.

Step 3: Multiply the reciprocal to the original dividend. In equation:

$$7\frac{1}{3} \div 2\frac{1}{5} = \frac{22}{3} \div \frac{11}{5} = \frac{22}{3} \times \frac{5}{11} = \frac{22}{3} \times \frac{5}{11} = \frac{10}{3} = 3\frac{1}{3}$$

Hence, the quotient when we divide $7\frac{1}{3}$ by $2\frac{1}{5}$ is $3\frac{1}{3}$.

2. Worked Example

Perform the following division of fraction:

1. $10 \div \frac{2}{5}$ 2. $\frac{4}{7} \div 4$ 3. $\frac{5}{8} \div \frac{1}{8}$ 4. $5\frac{1}{4} \div \frac{3}{4}$ 5. $12 \div 2\frac{1}{3}$ 6. 6

$\frac{3}{5} \div 2\frac{2}{5}$

3. Lesson Activity (Refer to Worksheet 2)

Answer: (Lesson Activity Worksheet2)

For Sub Topic 3

In this part of the lesson, the teacher will guide the students in applying the skill in dividing fractions in solving multi-step real-life problems. The problems provided are examples only. The teacher may use other examples that is more contextualized and localized. The teacher must make sure that students are following the indicated steps in problem-solving.

1. 48

2. $\frac{4}{27}$

3. 4

4. 12

5. 7

6. $1\frac{3}{5}$ **DAY 3****SUB-TOPIC 3: Solve multi-step problems involving division of fractions.****1. Explicitation**

Today, we will apply what we previously learned to solve real-life problems. The class will be divided into 4 groups. Each group will be given a problem to solve.

Group 1 and 2: (Health and Wellness Problem)

The recommended dosage of Vitamin C for children ages 8-12 is approximately $45\frac{1}{2}$ milligrams (mg) per day. How many days will a bottle of 910 mg of Vitamin C will last?

Group 3 and 4: (Recipe Problem)

Lola Amor is making chocolate cake. Each piece of chocolate cake requires $1\frac{3}{4}$ cups of all-purpose flour. How many chocolate cakes can she make if she has 14 cups of flour?

To solve problems involving fractions, we follow Polya's Steps in Problem Solving:

Step 1: Read and understand the problem. Identify all the knowns and unknowns.

Step 2: Plan. Determine what operation/s will be used. Write the equation that represents the problem.

Step 3: Solve. Perform the operation.

Step 4: Check. To check, perform the operation in reverse.

Step 5: Express your final answer in a complete statement with appropriate units.

To solve the problem assigned to groups 1 and 2.

Step 1: Read and understand the problem. Identify all the knowns and unknowns. From the problem, we can derive the following information:

Given :	
	Vitamin C contained in the bottle = 910 mg
	Dosage per day = $45\frac{1}{2}$ mg
Unknown:	
	How many days the bottle will last?

Step 2: Plan. Determine what operation/s will be used. Write the equation that represents the problem. The problem requires us to only divide the amount of Vitamin C in one bottle by the dosage per day to determine how many days it will last. Summarizing this, we have:

Operation:	
	Division
Equation:	
	$n = 910 \div 45 \frac{1}{2}$ <p>Where n is the number of days.</p>

Step 3: Solve. Perform the operation.

$$\begin{aligned}
 n &= 910 \div 45 \frac{1}{2} \\
 n &= \frac{910}{1} \div \frac{91}{2} \\
 n &= \frac{910}{1} \times \frac{2}{91} \\
 n &= \frac{\cancel{910}}{1} \times \frac{2}{\cancel{91}} \\
 n &= \frac{20}{1} \text{ or } 20 \quad \checkmark
 \end{aligned}$$

Step 4: Check. To check, perform the operation in reverse. Since we performed division, we are going to check by multiplying the divisor by our quotient. Checking:

$$\begin{aligned}
 910 &= 20 \times 45 \frac{1}{2} \\
 910 &= \frac{20}{1} \times \frac{91}{2} \\
 910 &= \frac{\cancel{20}}{1} \times \frac{\cancel{91}}{2} \\
 910 &= 910
 \end{aligned}$$

Since we ended up with an accurate equality, therefore we can say that our answer is correct.

Step 5: Express your final answer in a complete statement with appropriate units. The complete statement can be written as follows:

A 910 mg bottle will last 20 days.

To solve the problem assigned to groups 3 and 4.

Step 1: Read and understand the problem. Identify all the knowns and unknowns. From the problem, we can derive the following information:

Given :	
	Amount of flour Lola Amor has = 14 cups
	Flour for each chocolate cake = $1\frac{3}{4}$ mg
Unknown:	
	How many chocolate cakes can Lola Amor make?

Step 2: Plan. Determine what operation/s will be used. Write the equation that represents the problem. The problem requires us to only divide the amount of flour Lola Amor has by the number of cups required for each chocolate cake to determine how cakes will be made. Summarizing this, we have:

Operation:	
	Division
Equation:	
	$n = 14 \div 1\frac{3}{4}$ <p>Where n is the number of chocolate cakes.</p>

Step 3: Solve. Perform the operation.

$$\begin{aligned}
 n &= 14 \div 1\frac{3}{4} \\
 n &= \frac{14}{1} \div \frac{7}{4} \\
 n &= \frac{14}{1} \times \frac{4}{7} \\
 n &= \cancel{\frac{14}{1}} \times \cancel{\frac{4}{7}} \\
 n &= \frac{8}{1} \text{ or } 8
 \end{aligned}$$

Step 4: Check. To check, perform the operation in reverse. Since we performed division, we are going to check by multiplying the divisor by our quotient. Checking:

$$\begin{aligned}
 14 &= 8 \times 1\frac{3}{4} \\
 14 &= \frac{8}{1} \times \frac{7}{4}
 \end{aligned}$$

In this part of the lesson, the teacher may help the students recall some related concepts and skills such as how to perform other operation of fractions.

$$14 = \frac{8}{1} \times \frac{7}{4}$$

$$14 = 14$$

Since we ended up with an accurate equality, therefore we can say that our answer is correct.

Step 5: Express your final answer in a complete statement with appropriate units. The complete statement can be written as follows:

Lola Amor can make 8 chocolate cakes.

More Sample Problems:

1. Two cakes of the same size are served during a birthday party. The first cake has $\frac{1}{2}$ slice left while the other cake has $\frac{3}{4}$ slice left. The birthday celebrant divided all cakes into $\frac{1}{8}$ slices. How many slices of cake were made?

2. Lito is selling peanuts. He has 15 cups of peanuts and he puts $1\frac{1}{2}$ cups for every bag. If he sells each bag for 55 pesos, how much will Lito earn?

Answer:

1. Two cakes of the same size are served during a birthday party. The first cake has $\frac{1}{2}$ slice left while the other cake has $\frac{3}{4}$ slice left. The birthday celebrant divided all cakes into $\frac{1}{8}$ slices. How many slices of cake will be made?

Step 1: Read and understand the problem. Identify all the knowns and unknowns. From the problem, we can derive the following information:

Given :	
	Part left on the first cake = $\frac{1}{2}$ slice
	Part left on the second cake = $\frac{3}{4}$ slice
	The cakes will be divided into $\frac{1}{8}$ slices
Unknown:	
	How many slices of cake will be made?

Step 2: Plan. Determine what operation/s will be used. Write the equation that represents the problem. The problem requires us to first, add the portions of cakes that was left, then divide the total portion into $\frac{1}{8}$ slices.

Summarizing this, we have:

Operation:	
	Addition and Division

Equation:	
	$n = \left(\frac{1}{2} + \frac{3}{4} \right) \div \frac{1}{8}$ <p>Where n is the number of slices.</p>

Step 3: Solve. Perform the operation. First, let us perform the operation inside the parenthesis.

$$\frac{1}{2} + \frac{3}{4} = \frac{2}{4} + \frac{3}{4} = \frac{5}{4}$$

Next, substitute the sum back to our original equation.

$$n = \left(\frac{1}{2} + \frac{3}{4} \right) \div \frac{1}{8}$$

$$n = \frac{5}{4} \div \frac{1}{8}$$

$$n = \frac{5}{4} \times \frac{8}{1}$$


$$n = \frac{5}{\cancel{4}} \times \frac{\cancel{8}}{1}$$

$$n = \frac{10}{1} \text{ or } 10$$

Step 4: Check. To check, perform the operation in reverse. Since we performed division, we are going to check by multiplying the divisor by our quotient and see if we are going to get the same total portion of cakes. Checking:

$$\frac{5}{4} = 10 \times \frac{1}{8}$$

$$\frac{5}{4} = \frac{10}{1} \times \frac{1}{\cancel{8}}$$

$$\frac{5}{4} = \frac{5}{4}$$


Since we ended up with an accurate equality, therefore we can say that our answer is correct.

Step 5: Express your final answer in a complete statement with appropriate units. The complete statement can be written as follows:

The celebrant can make 10 slices of 1/8 portions of cake.

2. Lito is selling peanuts. He has 15 cups of peanuts and he puts $1\frac{1}{2}$ cups for every bag. If he sells each bag for 55 pesos, how much will Lito earn?

Step 1: Read and understand the problem. Identify all the knowns and unknowns. From the problem, we can derive the following information:

In this part of the lesson, the teacher may conduct this as an individual or group activity.

Answer: (Worked Example)

1. 40 days
2. 9 servings
3. 360 pesos

This lesson activity may be answered by the students after the discussion on Day 3 or as an asynchronous task which will be answered and processed on Day 4.

Given :	
	Lito has 15 cups of peanuts
	Each bag contains $1\frac{1}{2}$ cups of peanuts.
	Each bag of peanuts costs 55 pesos.
Unknown:	
	How much will Lito earn?

Step 2: Plan. Determine what operation/s will be used. Write the equation that represents the problem. The problem requires us to first, determine how many bags of peanuts can Lito make and multiply it by how much each bag costs. Summarizing this, we have:

Operation:	
	Division and Multiplication
Equation:	
	$n = \left(15 \div 1\frac{1}{2}\right) \times 55.00$ <p>Where n is how much Lito will earn.</p>

Step 3: Solve. Perform the operation. First, let us perform the operation inside the parenthesis.

$$15 \div 1\frac{1}{2} = \frac{15}{1} \div \frac{3}{2} = \frac{15}{1} \times \frac{2}{3} = \frac{15}{1} \times \frac{2}{3} = 10$$

Next, substitute the quotient back to our original equation.

$$n = \left(15 \div 1\frac{1}{2}\right) \times 55.00$$

$$n = 10 \times 55.00$$

$$n = 550.00$$

Step 4: Check. To check, perform the operation in reverse. Since we performed division then multiplication, First, we will do the operation in reverse by dividing the total earnings that we solved by the cost of each bag of peanuts.

$$\frac{550.00}{55.00} = 10 \text{ bags of peanuts}$$

Then, we multiply the quotient by the number of cups per bag to see if we can arrive at the total amount of peanuts that Lito originally had. Checking:

$$15 = 10 \times 1\frac{1}{2}$$

	$15 = \frac{10}{1} \times \frac{3}{2}$ $15 = \frac{\cancel{10}}{1} \times \frac{3}{\cancel{2}}$ $15 = 15$ <p>Since we ended up with an accurate equality, therefore we can say that our answer is correct.</p> <p>Step 5: Express your final answer in a complete statement with appropriate units. The complete statement can be written as follows: <i>Lito will earn 550 pesos.</i></p> <p>Worked Examples Read and understand each problem. Express in the lowest term, if necessary. Affix appropriate units.</p> <ol style="list-style-type: none"> 1. A doctor recommended that Nelly take $25\frac{1}{4}$ mL of medicine every day to be better. How many days will 1,010 mL of medicine last if Nelly follows the doctor's prescription? 2. A baker made a vanilla cake. One-fourth of the cake was bought by a customer. If the baker wanted to divide the remaining cake into $1/12$ portions, how many servings would he be able to make? 3. Shiela will repack $5\frac{2}{5}$ kg of salt into small packs in such a way that each pack contains $\frac{3}{10}$ kg. if each small pack is sold for 20 pesos, how much will Shiela earn? <p>Lesson Activity (Refer to Worksheet No. 3)</p>	<p><i>Answer: (Lesson Activity Worksheet 3)</i></p> <ol style="list-style-type: none"> 1. 8 pies 2. $9\frac{5}{8}$ km 3. 18 bottles
B. Making Generalizations	<p>DAY 4</p> <p>1. Learners' Takeaways From the discussion for this week,</p> <ol style="list-style-type: none"> a. What are the steps in dividing fractions? b. What are the steps in solving problems involving operations of fractions? <p>2. Reflection on Learning a. We were taught how to solve problems involving divisions of fractions, do you think these steps can also be applied in solving problems in life? Can you cite</p>	<p>In this part of the lesson, the teacher will guide the students in generalizing what they have learned by answering the given guide questions.</p> <p>In this part of the lesson, the teacher will help the students realize the importance of the</p>

	instances when you were able to apply these steps in solving a problem at home or at school? b. We also encountered problems about proper dosage of medicine. Do you think it is important to follow the proper dosage of medicine as prescribed by doctors? c. Some of the problems that we solved this week involve cooking, do you think accurate measurements are important in cooking? Why do you think so?			lesson as a math student and the application of the skills learned in the lesson in real life.	
IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER’S REFLECTION					NOTES TO TEACHERS
A. Evaluating Learning	DAY 4 1. Formative Assessment (Refer to Worksheet 4) 2. Homework (Optional)				
B. Teacher’s Remarks	Note observations on any of the following areas:	Effective Practices	Problems Encountered	Teachers are encouraged to record relevant observations or any critical teaching events that influence the attainment of the lesson objectives. Use or modify the provided template in recording the notable instructional areas or concerns. In addition, notes here can also be on tasks that will be continued the next day or additional activities needed.	
	strategies explored				
	materials used				
	learner engagement/ interaction				
	others				
C. Teacher’s Reflection	Reflection guide or prompt can be on: <ul style="list-style-type: none">principles behind the teaching What principles and beliefs informed my lesson? Why did I teach the lesson the way I did?students What roles did my students play in my lesson? What did my students learn? How did they learn?ways forward What could I have done differently? What can I explore in the next lesson?			Entries on this section are teacher’s reflections about the implementation of the whole lesson, which will serve as input for the LAC sessions. Use or modify the provided guide questions in eliciting teacher’s insights.	