3

NATIONAL LEARNING CAMP

DepED DEPARTMENT OF EDUCATION

Mathematics

Intervention Camp

Lesson Plans

Intervention Learning Camp

Lesson Plans

Mathematics Grade 3

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MATHEMATICS Grade 3 Lesson Plan 1

Key Idea

- Understand that odd numbers cannot be divided evenly into two groups.
- Recognize that even numbers can be divided into two equal groups with no remainder.
- Practice identifying odd and even numbers through various activities.

Most Essential Learning Competency

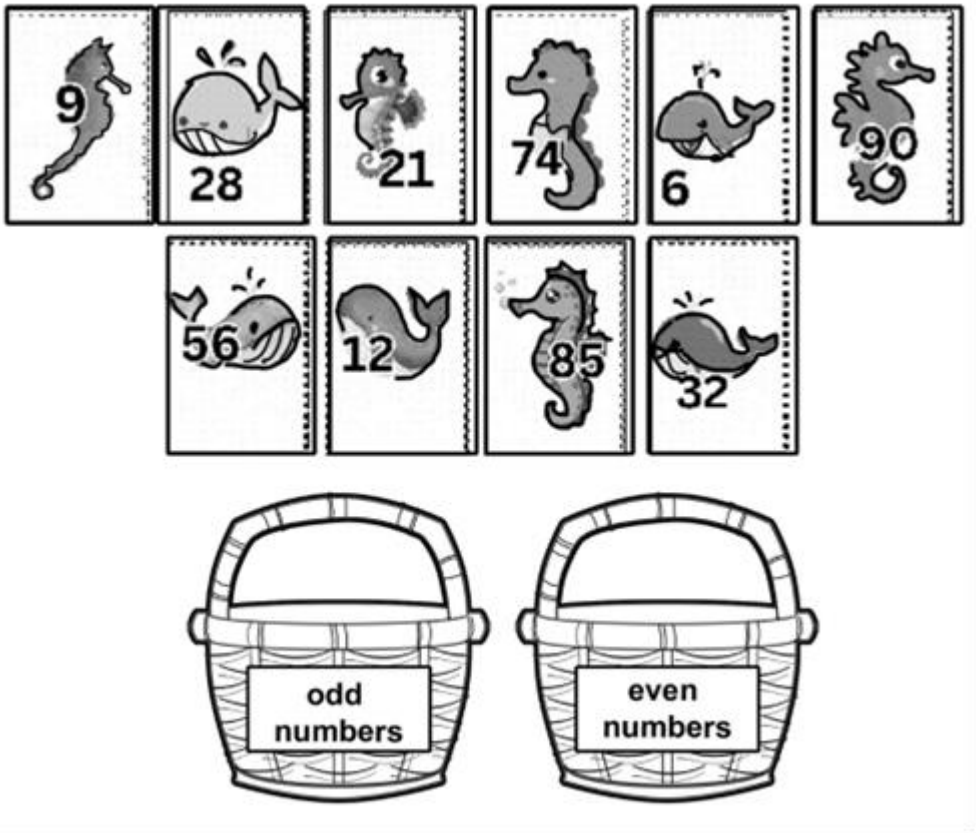
- Identifies odd and even numbers. M3NS-IIIa-63

Component 1: *Lesson Short Review*

Time: 7 mins.

Under the Sea: Whales and Seahorses Game
This activity will engage students and activate their prior knowledge on numbers.

-The learners will be divided into three groups.
-They will be given different number cards.
-They will be asked to sort the numbers and put them in the appropriate basket.



-Let the learners present their work.
-Say:
- What have you noticed about the numbers you placed in the basket for odd numbers?
- Where do these odd numbers end?
- What have you noticed about the numbers you placed in the basket for even numbers?
- Where do these even numbers end?

Sample Answers

Q1: The numbers cannot be divided equally into 2.

Q2: These numbers end in 1,3,5,7, and 9.

Q3: The numbers can be divided equally by 2's.

Q4: These numbers end in 0,2,4,6, and 8.

Component 2: ***Lesson Purpose/Intention***

Time: 3 mins.

Identifying odd and even numbers is a stepping stone for understanding core mathematical concepts like addition, subtraction, multiplication, and division. It lays the groundwork for future learning and problem-solving. Grouping and pairing objects based on odd/evenness encourages logical thinking, which transfers to solving various problems and analyzing patterns.

Component 3: *Lesson Language Practice*

Time: 5 mins.

- Read out difficult or unfamiliar words or phrases and ask the students to read them to themselves and then out loud as a class.

- An **even number** is any whole number that can be divided by 2 with no remainder.
- The last digit of an even number will always be **0, 2, 4, 6,** or **8.**
- An **odd number** is any whole number that cannot be divided by 2 with no remainder.
- The last digit of an odd number will always be **1, 3, 5, 7,** or **9.**
- The **remainder** is the number that is left after you divide.
- **Divisibility** means that a number goes evenly (with no remainder) into a number.

- Read out the terms and ask learners to read them to themselves and then out loud as a class.

Component 4*: Lesson Activity*

Time: 25 mins.

Activity 4A

▪ Present a real-life situation wherein learners can relate.

> Carl and his friend baked 11 cookies for their snacks. How can they share the cookies equally?

▪ Ask the following questions:

-How many cookies did Carl and his friend bake?

-Do you think they will get an equal number of cookies? Why or why not?

-Do you think the skills of identifying odd and even numbers will help you decide in baking cookies? What should they do so that they will get the same number of cookies?

Sample Answers:

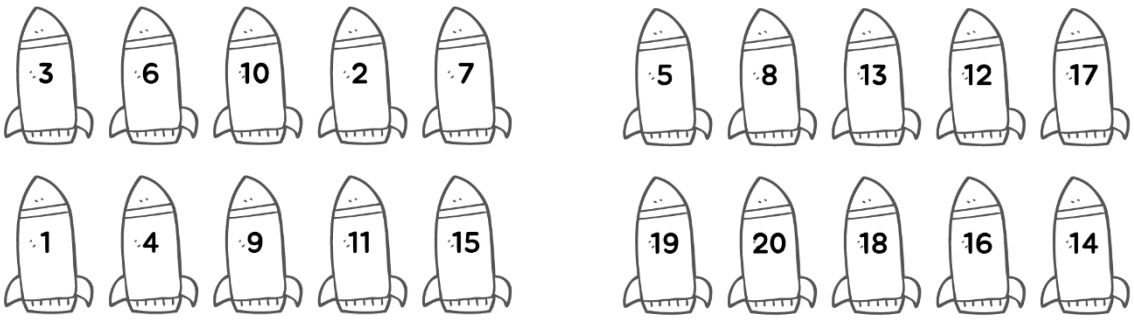
Q1: 11

Q2: No, because 11 is an odd number. If you divide by 2 you will get a remainder of 1.

Q3: Yes, if the number of people who will share the cookies is even, they should choose to bake an even number of cookies so that each of them gets the same.

Try this out!

Learners will participate in a quick game where they must stand up if the number called out is even and stay seated if it's odd.



Activity 4B

Number Shuffle Game!

Directions: Learners stand in a circle. The teacher will say a starting number (e.g., 10). Each player counts up or down by 2, saying the next number aloud. Learners who will say an odd number will be out. The last player standing will win.

Starting Numbers

1. 28 2. 56 3. 72 4. 80 5. 94

Sample Answers:

1. 30, 32, 34, 36, 38, / 26, 24, 22, 20, 18

2. 58, 60, 62, 64, 68, / 54, 52, 50, 48, 46

3. 74, 76, 78, 80, 82, / 70, 68, 66, 64, 62

4. 82, 84, 86, 88, 90, / 78, 76, 74, 72, 70

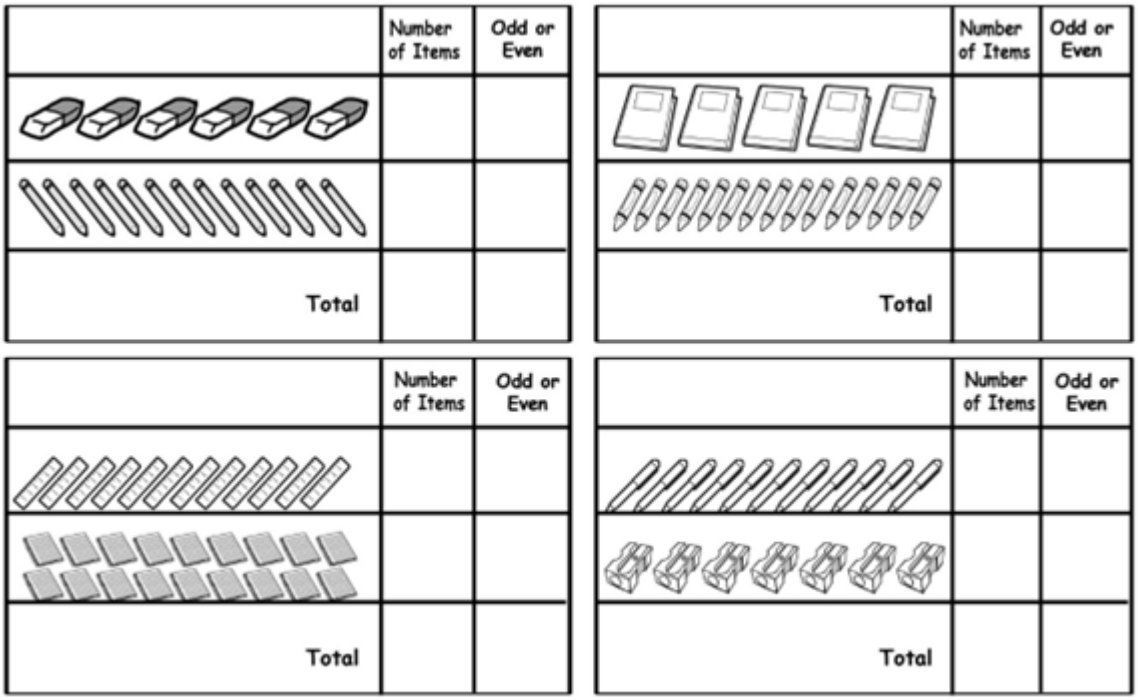
5. 96, 98, 100, 102, 104 / 92, 90, 88, 86, 84

Activity 4C

Count me in!

Directions:

- Count the number of items in each set. Write if it is odd or even. Then get the total of all the items. Identify if it is an odd or even.



Component 5: Lesson Conclusion

Time: 5 mins.

- Identifying odd and even numbers is fundamental in math, helping with more complex operations. Odd numbers cannot be divided evenly by 2, while even numbers do. Mastering this skill builds a foundation for advanced math concepts, aiding in real-life scenarios like data organization, probability, and problem-solving.
- Ask learners to answer the following questions either by class discussion or writing the answers in their worksheet.

Q1. What is an even number? Odd number?

Q2. Can you explain when a number is an odd or even?

Q3. What new concepts or skills did you learn about during this lesson?

Q4. Did collaborating with your classmates help you understand the lesson? How?

Reflection:

Q5. If numbers are grouped according to qualities, should people be grouped based on qualities, too? Why or why not?

- Let learners know that good learners reflect on their learning.
- Segue to next lesson: In the next lesson, we will discuss and enjoy lessons about fractions.

REMINDER: Collect learners' worksheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 2

Visualizes, represents, and arranges dissimilar fractions in increasing order or decreasing order.

Key Ideas:

- How do we compare fractions?
  - Look how the figures or shapes are arranged and identify which shape/s repeat over and over.
  - Identify the order of the repeated figures.

- Discuss the steps in arranging dissimilar fractions.
  - Find the least common denominator.
  - Determine the equivalent fractions sharing the LCD.
  - Arrange the numerators in increasing or decreasing order.
  - Rewrite the fractions.

Most Essential Learning Competencies

- Visualizes, represents, and arranges dissimilar fractions in increasing order or decreasing order.

Component 1: ***Lesson Short Review***

Time: (3 mins.)

- Ask the class to do the review exercise in the worksheet.
- Compare: $\frac{5}{12}$ and $\frac{17}{12}$ using <, > or =.

Step 1: First, observe the denominators of the given fractions, i.e., $\frac{5}{12}$ and $\frac{17}{12}$.

Here, the denominators are the same for both fractions.

Step 2: Now, compare the numerators of the given fractions. We can observe that 17 > 5.

Step 3: We know that the fraction with the larger numerator is larger. Hence, $\frac{5}{12}$ and $\frac{17}{12}$.

Call volunteers to give their answers.

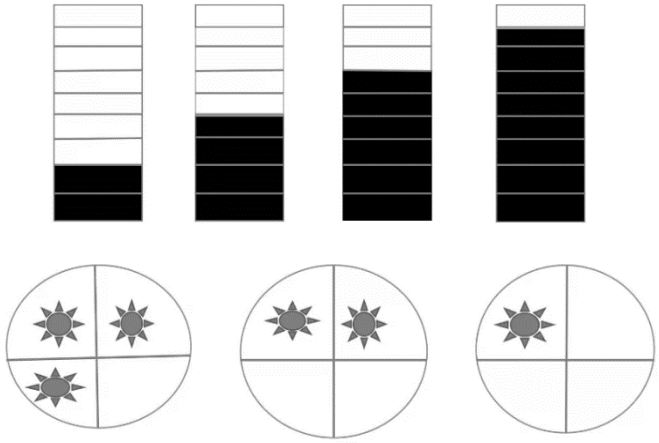
Answer:

1. <

Component 2: ***Lesson Purpose/Intention***

Time: (7 mins.)

Show examples of fractions and let the learners identify the fractions (The numerator or the numbers of part being taken and the denominator or the number of equal parts into which the whole is divided).



Ask:

a. What have you noticed about the fractions? (about numerators and denominators)
b. What have you noticed about their arrangements?

Component 3: *Lesson Language Practice*

Time: (5 mins.)

A. Directions: Order the following similar fractions below in increasing and decreasing orders.

1. $\frac{12}{15}, \frac{7}{15}, \frac{3}{15}, \frac{9}{15}, \frac{5}{15}$

Increasing Order:
Decreasing Order:

2. $\frac{2}{20}, \frac{10}{20}, \frac{5}{20}, \frac{15}{20}, \frac{17}{20}$

Increasing Order:
Decreasing Order:

3. $\frac{10}{18}, \frac{5}{18}, \frac{7}{18}, \frac{14}{18}, \frac{6}{18}$

Increasing Order:
Decreasing Order:

4. $\frac{1}{8}, \frac{7}{8}, \frac{6}{8}, \frac{3}{8}, \frac{5}{8}$

Increasing Order:
Decreasing Order:

Answers:

1. Increasing Order: $\frac{3}{15}, \frac{5}{15}, \frac{7}{15}, \frac{9}{15}, \frac{12}{15}$

   Decreasing Order: $\frac{12}{15}, \frac{9}{15}, \frac{7}{15}, \frac{5}{15}, \frac{3}{15}$

2. Increasing Order: $\frac{2}{20}, \frac{5}{20}, \frac{10}{20}, \frac{15}{20}, \frac{17}{20}$

   Decreasing Order: $\frac{17}{20}, \frac{15}{20}, \frac{10}{20}, \frac{5}{20}, \frac{2}{20}$

3. Increasing Order: $\frac{5}{18}, \frac{6}{18}, \frac{7}{18}, \frac{10}{18}, \frac{14}{18}$

   Decreasing Order: $\frac{14}{18}, \frac{10}{18}, \frac{7}{18}, \frac{6}{18}, \frac{5}{18}$

4. Increasing Order: $\frac{1}{8}, \frac{3}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}$

   Decreasing Order: $\frac{7}{8}, \frac{6}{8}, \frac{5}{8}, \frac{3}{8}, \frac{1}{8}$

Arrange $\frac{3}{4}, \frac{5}{8}, \frac{11}{12}$ in ascending order (from least to greatest).

Solution:

Least common multiple of (4, 8, 12) = 24.

$\frac{3}{4}$ = (3 · 6)/(4 · 6) = $\frac{18}{24}$

$\frac{5}{8}$ = (5 · 3)/(8 · 3) = $\frac{15}{24}$

$\frac{11}{12}$= (11 · 2)/(12 · 2) = $\frac{22}{24}$

Compare the numerators of similar fractions above and order them from least to greatest.

$\frac{15}{24}$, $\frac{18}{24}$, $\frac{22}{24}$

Substitute the corresponding original fractions.

$\frac{5}{8}$, $\frac{3}{4}$, $\frac{11}{12}$

Answer:

$\frac{5}{8}$, $\frac{3}{4}$, $\frac{11}{12}$

Remember: When the denominators of the given set of fractions are the same, arrange the numerators accordingly in ascending and descending order. But if the denominators are not the same, take the LCM of all denominators and make all denominators equal. After that, check the numerator and arrange them in ascending or descending order.

Component 4*: Lesson Activity*

Time: (25 mins.)

Component 4A

- Present the story problem to the class. Let them read and understand the problem.

Maria and her mother went to the market. She helped her in buying the following ingredients: $\frac{3}{4}$ kilogram of chicken, $\frac{1}{2}$ kilogram of papaya, $\frac{1}{4}$ kilogram of ginger and $\frac{1}{8}$ kilogram of onions.

Component 4B

- After reading, ask the following questions and call volunteers to give their answers.
  1. What recipe do you think Maria's mother plans to cook?
  2. Do you also help your mother at home? How?
  3. What household chores do you do to help your mother?
  4. If we are going to arrange the ingredients from heaviest to lightest, which should come first? second? third? fourth? Why?

Answers:

1. tinola
2. yes, by preparing ingredients
3. answers may vary
4. $\frac{3}{4}, \frac{1}{2}, \frac{1}{4}, \frac{1}{8}$

Component 4C

A. Arrange each group of fractions in decreasing order:

1. $\frac{1}{6}, \frac{1}{8}, \frac{1}{4}, \frac{1}{5}$
2. $\frac{1}{5}, \frac{1}{10}, \frac{1}{2}, \frac{1}{7}$
3. $\frac{2}{8}, \frac{1}{8}, \frac{8}{8}, \frac{5}{8}$
4. $\frac{3}{11}, \frac{15}{11}, \frac{9}{11}, \frac{5}{11}$

Answers:

1. $\frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{8}$
2. $\frac{1}{2}, \frac{1}{5}, \frac{1}{7}, \frac{1}{10}$
3. $\frac{8}{8}, \frac{5}{8}, \frac{2}{8}, \frac{1}{8}$
4. $\frac{15}{11}, \frac{9}{11}, \frac{5}{11}, \frac{3}{11}$

Remember: To order fractions with the same numerators (unit fractions), compare their denominators, the greater the denominator of the fraction, the lesser the fraction.

B. Arrange the fractions in ascending order:

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

Answers:

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

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

Component 5: Lesson Conclusion

Time: (5 mins.)

Say:

How do we arrange a set of fractions in increasing or decreasing order?

a. Unit Fractions

- To order/arrange fractions with the same numerators but different

denominators, compare their denominators. The greater the denominator of the fraction, the lesser the fraction.

b. Similar and Dissimilar Fraction

- When the denominators of the given set of fractions are the same, arrange the numerators accordingly in ascending and descending order. But if the denominators are not the same, take the LCM of all denominators and make all denominators equal. After that, check the numerator and arrange them in ascending or descending order.

- Say, “You all did great today. I hope to see everybody again in our next meeting and we will discuss fractions that are equal to one and greater than one using regions, sets and number.

REMINDER: Collect learners’ worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 3

Visualizing and representing fractions that are equal to one and greater than one using regions, sets and number line.

Key Ideas:

Fraction is a part of a whole. It can be represented using regions, sets, and number lines.

Fractions are called "*fractions equal to one*" when their numerators and denominators are the same.

Fractions are called "*fractions greater than one*" when the numerators are greater than the denominators.

Most Essential Learning Competencies

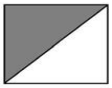
- Visualizes and represents fractions that are equal to one and greater than one using regions, sets and number line.
- Identifies fractions that are equal to one and greater than one in each region, sets and number line.

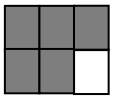
Component 1: *Lesson Short Review*

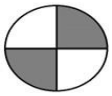
Time: 5 mins.

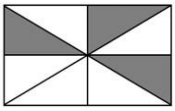
- Answer the activity on the worksheet.
- Say: Name the fractional part of the shaded portion in each figure. Write the letter of the correct answer in your answer sheet.

_____ 1.  A. $\frac{1}{3}$ B. $\frac{2}{3}$ C. $\frac{3}{3}$ D. $\frac{4}{3}$

_____ 2.  A. $\frac{1}{5}$ B. $\frac{1}{4}$ C. $\frac{1}{3}$ D. $\frac{1}{2}$

_____ 3.  A. $\frac{1}{6}$ B. $\frac{2}{6}$ C. $\frac{3}{6}$ D. $\frac{5}{6}$

_____ 4.  A. $\frac{4}{4}$ B. $\frac{3}{4}$ C. $\frac{2}{4}$ D. $\frac{1}{4}$

_____ 5.  A. $\frac{3}{8}$ B. $\frac{3}{5}$ C. $\frac{5}{8}$ D. $\frac{5}{3}$

Call volunteers to give their answers.

Answers: 1. *B* 2. D 3. *D* 4. *C* 5. *A*

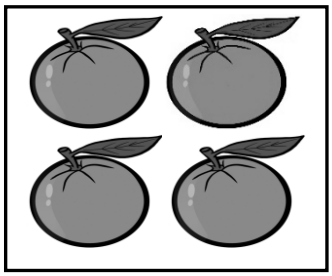
Component 2: ***Lesson Purpose/Intention***

Time: 5 mins.

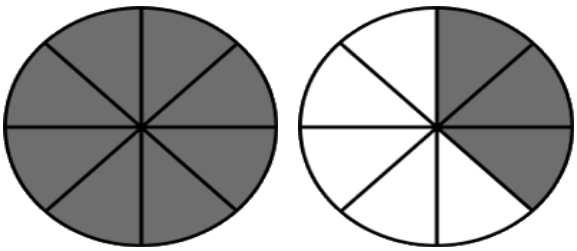
Activity: Divide the class into 5 groups. Each group will be given puzzle pieces and have them work together to form the puzzle.

Note: Each figure must be cut into puzzle pieces before giving it to the pupils.

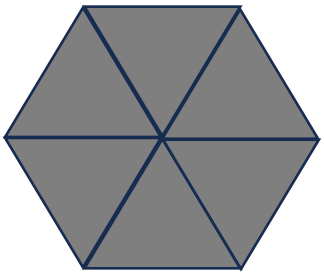
Group 1



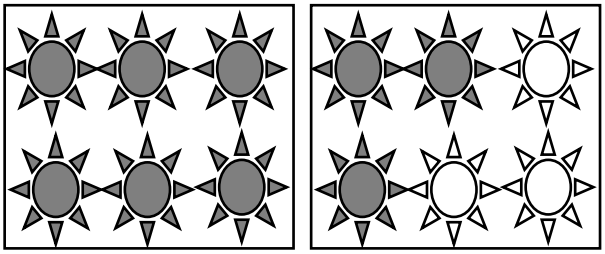
Group 2



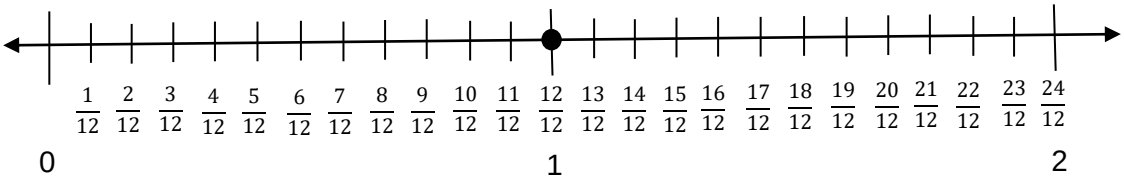
Group 3



Group 4



Group 5



After doing the activity, let them answer the following question:

- What is the fraction of the shaded portion of each figure, set, or number line?

Answers: $\frac{4}{4}$, $\frac{11}{8}$, $\frac{6}{6}$, $\frac{9}{6}$, $\frac{12}{12}$

- From your answer, what can you say about the numerator and denominator of the fraction?

Possible Answers:

- The numerator is equal to the denominator.
- The numerator is greater than the denominator.

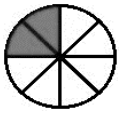
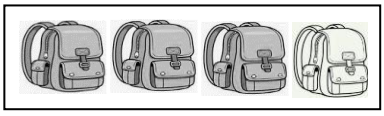
Component 3: *Lesson Language Practice*

Time: 5 mins.

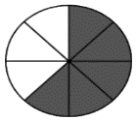
Activity: Arrange the jumbled letters to form the word that suits the given description and example.

Note: Each letter must be written on a strip of paper.

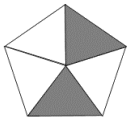
1. C R A N I F T O – is a part of a whole, a set or a number line.

Example:  

2. R N U E M R T O A - is a part being considered. It is the number above the line in a fraction.

Example:  $\frac{5}{8}$ ⟸

3. M E N O I D N T O R A - is the total number of parts which the whole is divided. It is the number below the line in a fraction.

Example:  $\frac{2}{5}$ ⟸

4. ALQEU – being the same in quality, size, degree, or value.

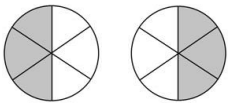
Example: 

Figure A has the same value as Figure B.

5. T R A E R G E – the number is more than the given limit.

Example: 

The number of shaded parts in Figure A is more than in Figure B.

Answers:

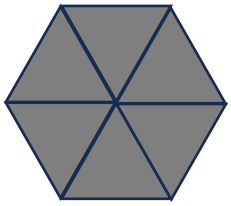
1. fraction 2. numerator 3. denominator 4. equal 5. greater

Component 4*: Lesson Activity*

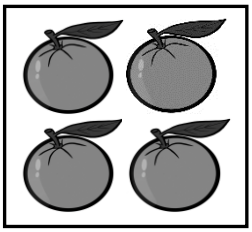
Time: 25 mins.

Component 4A

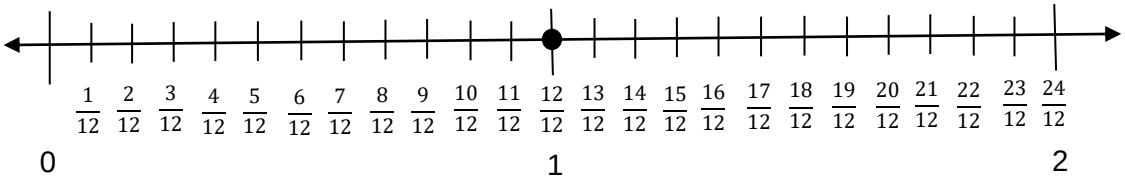
- Look at the figures/ illustrations below.
- Ask the pupils to give the fraction in each figure.



$\frac{6}{6}$



$\frac{4}{4}$

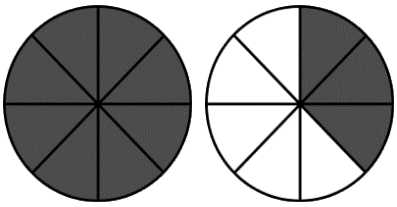


- What have you noticed about the fraction illustrated in the given region, set, and number line?
  Answer: They have the same numerator and denominator.

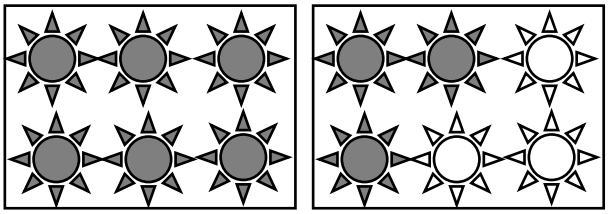
Fractions are called "***fractions equal to one***" when their numerators and denominators are the same.

Therefore, $\frac{6}{6}$, $\frac{4}{4}$, $\frac{12}{12}$ are fractions equal to one.

- Present another figure. Ask the pupils to give the fraction in each figure.



$\frac{11}{8}$



$\frac{9}{6}$

- What have you noticed about the fractions $\frac{11}{8}$ and $\frac{9}{6}$?
  Answer: The numerator is greater than the denominator.

Fractions are called "***fractions greater than one***" when the numerators are greater than the denominators.

Therefore, $\frac{11}{8}$ and $\frac{9}{6}$ are fractions greater than one.

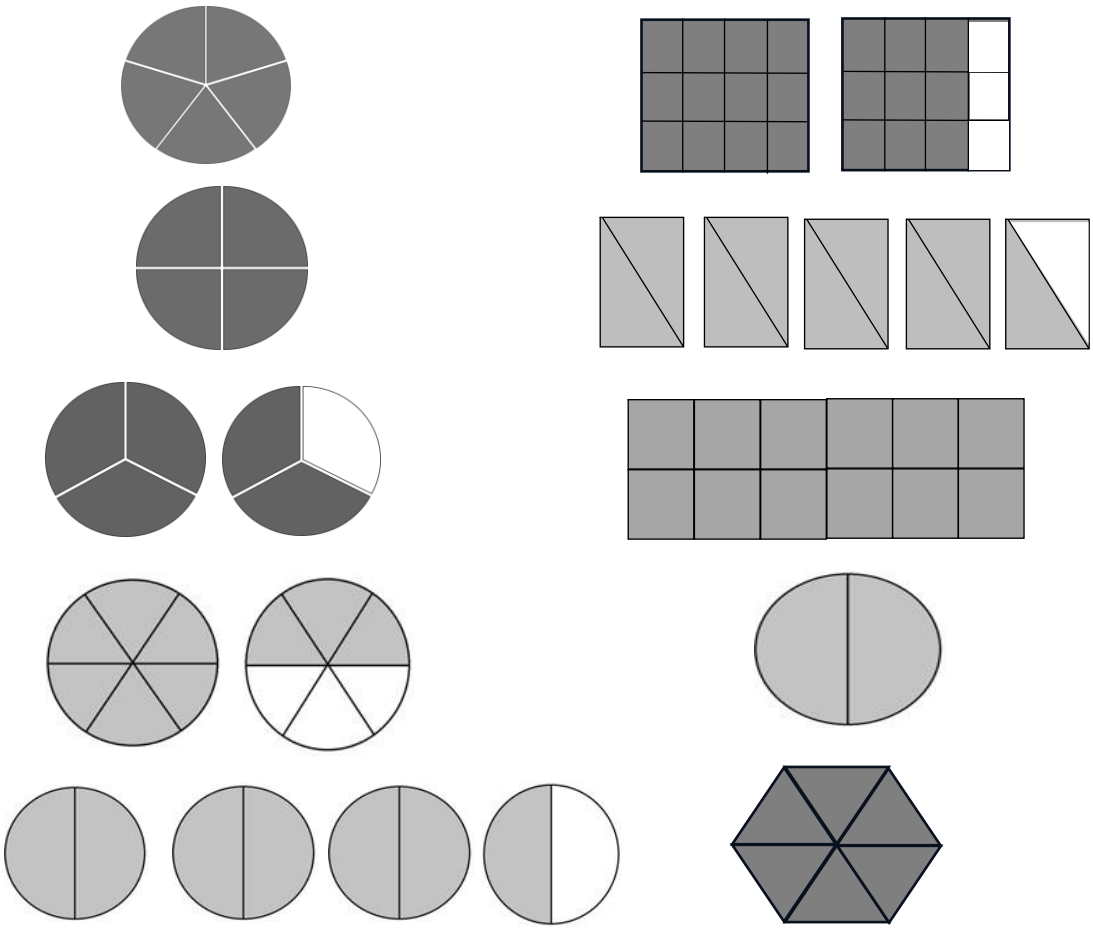
Remember: Fractions can be represented using regions, sets, and number line.

Component 4B

Activity: "***Find my match***"

Provide two sets of cards (one for figures and one for fraction names).

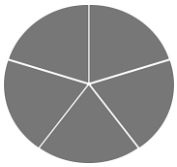
Pupils will look for their match using the given cards. After finding their match, they will group themselves into *fractions equal to one* or *fraction greater than one*. The first team to complete their group will be the winner.



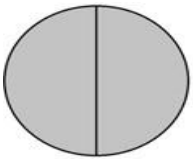
$\frac{2}{2}$	$\frac{5}{3}$	$\frac{21}{12}$	$\frac{4}{4}$	$\frac{5}{5}$
$\frac{6}{6}$	$\frac{7}{2}$	$\frac{9}{6}$	$\frac{12}{12}$	$\frac{9}{2}$

Note: *Teacher may add a set of cards if necessary, so that all pupils may be given cards.*

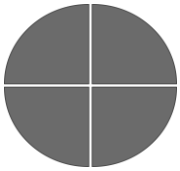
Answers:



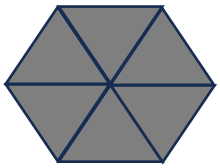
$\frac{5}{5}$



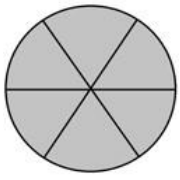
$\frac{2}{2}$

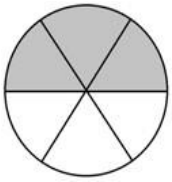


$\frac{4}{4}$



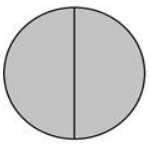
$\frac{6}{6}$

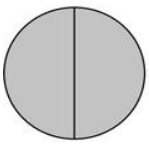


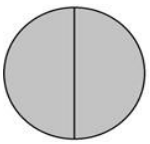


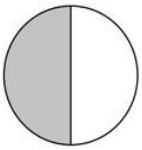
$\frac{9}{6}$

$\frac{5}{3}$

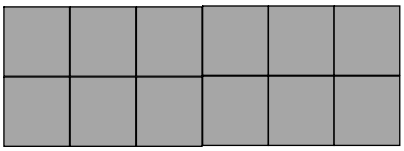




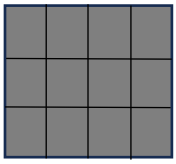


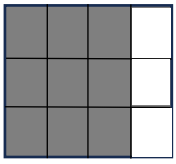


$\frac{7}{2}$

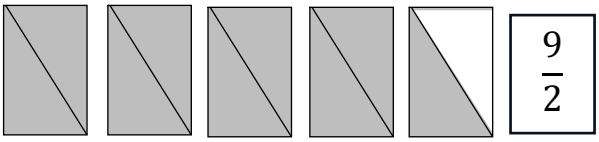


$\frac{12}{12}$





$\frac{21}{12}$



$\frac{9}{2}$

Note: The pair having fraction with the same numerator and denominator belongs to the *GROUP of Fraction Equal to One*. While the pair with fraction with greater numerator than denominator belongs to the *GROUP of Fraction Greater than One*.

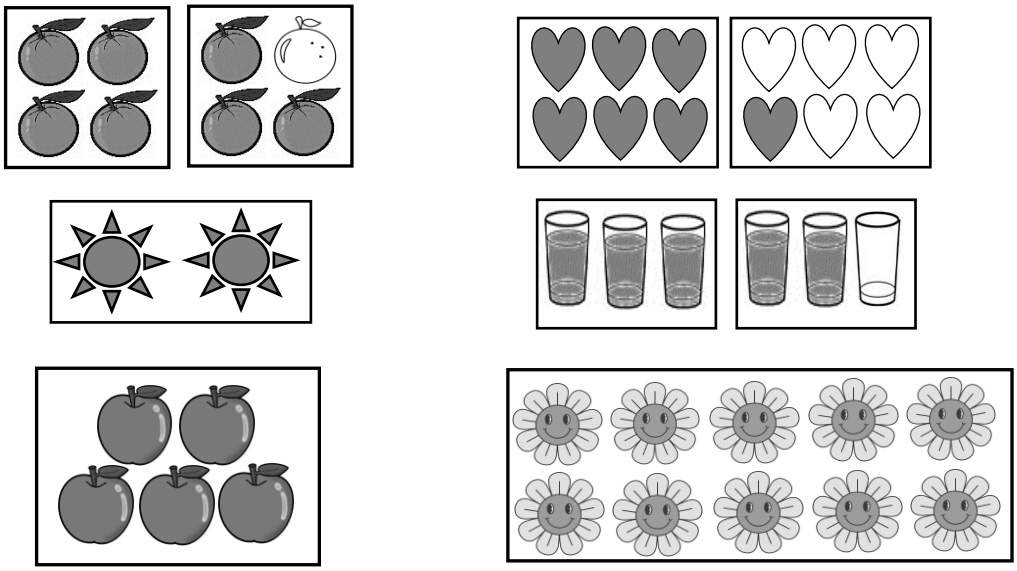
Component 4C

Activity 1: "*Where do I belong?*"

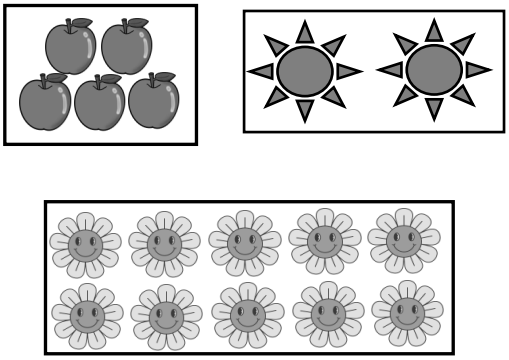
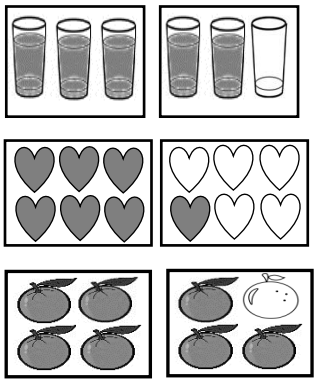
Classify the fractions as fraction equal to one or fraction greater than one.

Put them in their proper column.

Fraction equal to one	Fraction greater than one



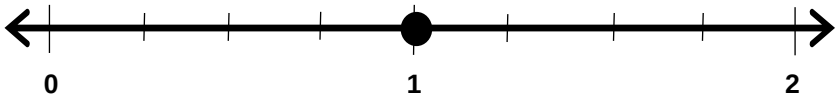
Answers:

Fraction equal to one	Fraction greater than one
	

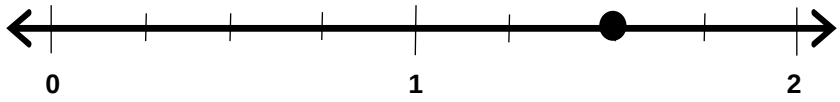
Activity 2: "*Who am I?*"

Determine the fraction indicated on the number line and write the answer in the blank.

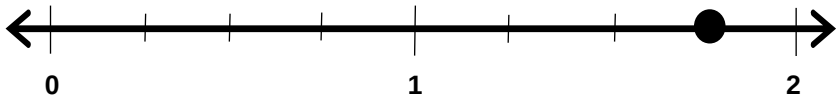
_____ 1.



_____ 2.



_____ 3.



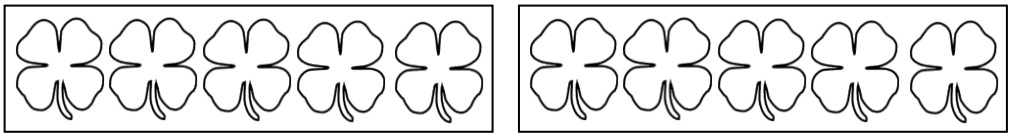
Answers:

1. $\frac{4}{4}$ 2. $\frac{6}{4}$ 3. $\frac{7}{4}$

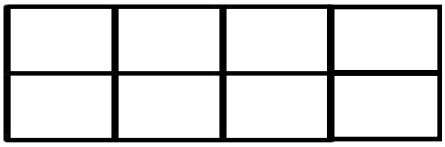
Activity 3: *"Color Me"*

Color the shape/region/object and number of objects in the group/set indicated by each given fraction.

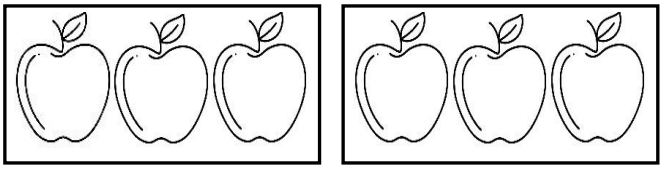
$\frac{7}{5}$



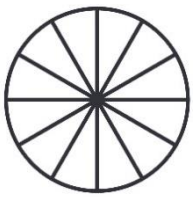
$\frac{8}{8}$



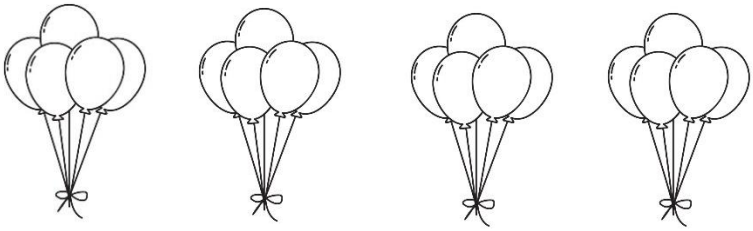
$\frac{4}{3}$



$\frac{12}{12}$



$\frac{17}{5}$



Teacher Note: Provide a separate sheet for the learners

Answers:

1. 7 flowers were shaded.

2. all parts of the regions were shaded.

3. 4 apples were shaded.

4. all parts of the regions were shaded.

5. 17 balloons were shaded.

Component 5: Lesson Conclusion

Time: 5 mins.

Activity: "Draw Me"

Draw the fraction being described. Use any representations (regions, set, or number lines).

1. I am a fraction equal to one. My denominator is 4.

2. I am a fraction greater than one whose denominator is 5 and the numerator is 9.

3. I am a fraction greater than one that shows 8 of 3 equal parts.

4. I am a fraction equal to one and my numerator is 10.

5. I am a fraction greater than one that shows 7 of 4 equal parts.

After doing the activity, ask them the following questions:

- What is fraction equal to one? What is fraction greater than one?

- In what ways can you represent/ show fractions?

Answer:

- *Illustrations for each fraction may vary.*

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

  2. $\frac{9}{5}$

  3. $\frac{8}{3}$

  4. $\frac{10}{10}$

  5. $\frac{7}{4}$

- A fraction equal to one when the numerator and the denominator are the same.
- A fraction greater than one when the numerator is greater than the denominator.

- We can represent/ show fractions using regions, sets or number line.

Say: “You all did great today. I hope to see everybody again in our next meeting and discuss, learn and explore about reading and writing fractions in symbol and in words”.

REMINDER: Collect learners’ worksheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 4

Reads and writes fractions that are equal to one and greater than one in symbols and in words.

Key Ideas:

Fraction is a part of a whole. It can be represented using regions, sets and number lines.

Fractions are called “fractions equal to one” when their numerators and denominators are the same.

Fractions are called “fractions more than one” when the numerators are greater than the denominators.

Most Essential Learning Competency

- Reads and writes fractions that are equal to one and greater than one in symbols and in words.

Component 1: *Lesson Short Review*

Time: 3 mins.

Write A if the fraction is equal to one and B if greater than one.

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

Call volunteers to give their answers.

Answers:

1. A
2. B
3. A
4. A
5. B

Component 2: ***Lesson Purpose/Intention***

Time: 7 mins.

Can we use symbols and words to talk about fractions that are greater than one?

How do we read and write them?

What is the connection between the numerator and denominator in a fraction that is bigger than 1?

This lesson focuses on the development of skills on reading and writing fractions that are equal to one and greater than one in symbols and in words.

Component 3: *Lesson Language Practice*

Time: 5 mins.

- Show the following word strips and post them on the chalkboard: *numerator*, *denominator*, *fraction equal to one*, *fraction greater than one*.
- Tell them that they will encounter the key words in the concepts to be taught.

- Assist the learners in doing the activity in the worksheet:

  Match column A with the corresponding meaning in column B. Write the letter of the correct answer on the blank before each number.

A.	B.
___1. The part being considered.	A. denominator
___2. The part being unshaded.	B. numerator
___3. The numerator is equal to the denominator.	C. fraction
___4. It is a part of the whole.	D. fraction is greater than one
___5. The numerator is bigger than the denominator.	E. fraction equal to one

Answers:

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

Component 4*: Lesson Activity*

Time: 25 mins.

Component 4A

- Ask the class to read the problem. Let the pupils act it out. Have them answer the questions below.

> Lucky cut the cassava cake into 4 equal parts. He gave 1 piece to each of his 3 sisters and ate the rest. What part did each one get?
>
> Ask:
>
> To whom did Lucky give the 3 parts of the cassava cake?
>
> How did he divide?
>
> What kind of a boy is Lucky?
>
> What value does he possess?
>
> Do you want to be like Lucky? Why?

Component 4B

- After reading, ask the following questions and call volunteers to give their answers.
  1. Who cut the cassava cake?
  2. How did he share the cassava cake?
  3. How did he cut the cassava cake?
  4. What do you call each part?
  5. What parts were eaten by Lucky and his sisters?
  6. Write the fraction in symbols and in words.

Component 4C

A. Ask the class to read about this problem.

Some pupils of Mrs. Mandapat's class colored game-squares.

How many game-squares did the pupils color?

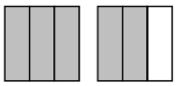
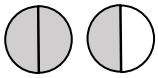
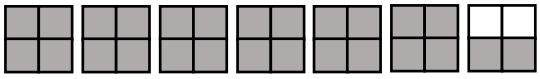
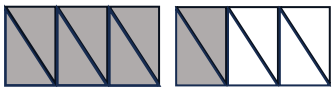
I can see: 

I can read: $\frac{7}{2}$

I can write: seven-halves

A. Write the corresponding fraction word in the following figure:

five-thirds	eight-fifths	eight-sixths
three-halves	twenty-six-fourths	

1. 
2. 
3. 
4. 
5. 

Answers:

1. eight-fifths
2. five-thirds
3. three-halves
4. twenty-six-fourths
5. eight-sixths

Remember:

Some fractions are equal to one. Other fractions are greater than one.

Let the pupils answer the following activities in their worksheet. Discuss the answers.

Activity 1:

On your paper, write the following fractions in symbols:

1) seven-halves _____
2) ten-thirds _____
3) eleven-fifths _____
4) nine-fourths _____
5) thirteen-thirds _____
6) twelve-tenths _____
7) three-halves _____
8) six-fourths _____
9) five-halves _____
10) eleven-sixths _____

Answers:

1) $\frac{7}{2}$ *6)* $\frac{12}{10}$

2) $\frac{10}{3}$ 7) $\frac{3}{2}$

3) $\frac{11}{5}$ 8) $\frac{6}{4}$

4) . $\frac{9}{4}$ 9) $\frac{5}{2}$

5) . $\frac{13}{3}$ 10) $\frac{11}{6}$

Activity 2

On your paper, write the following fractions in words:

1) $\frac{15}{8}$ _____ **6)** $\frac{11}{9}$ _____

2) $\frac{4}{3}$ _____ **7)** $\frac{15}{12}$ _____

3) $\frac{9}{5}$ _____ **8)** $\frac{8}{3}$ _____

4) $\frac{13}{10}$ _____ **9)** $\frac{5}{2}$ _____

5) $\frac{7}{4}$ _____ **10)** $\frac{14}{8}$ _____

Answers:

1. fifteen-eighths
2. four-thirds
3. nine-fifths
4. thirteen-tenths
5. seven-fourths
6) eleven-ninths
7) fifteen-twelves
8) eight-thirds
9) five-halves
10) fourteen-eighths

Component 5: Lesson Conclusion

Time: 5 mins.

- Say: A **fraction equal to one** when the numerator and the denominator are the same.
  A **fraction greater than one** when the numerator is greater than the denominator.
- Instruct the learners to pair with their classmates and ask them to give examples of fractions equal to one and fractions greater than one and have them read and write in symbols and in words.
- After the paired activity, ask for volunteers to show their outputs. Provide feedback on their work.
- Say: I hope to see everybody again in our next meeting to discuss missing term/s in a given combination of continuous and repeating pattern.

REMINDER: Collect learners' worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 5

Determines the missing term/s in a given combination of continuous and repeating pattern.

Key Idea

- Demonstrates understanding of continuous and repeating patterns and mathematical sentences involving multiplication and division of whole numbers.

Most Essential Learning Competency

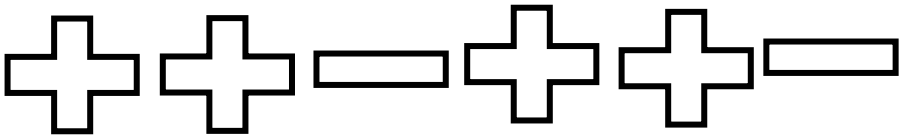
- Determines the missing term/s in a given combination of continuous and repeating pattern. (M3AL-IIIi-4)

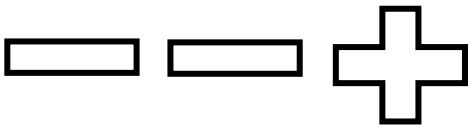
Component 1: *Lesson Short Review*

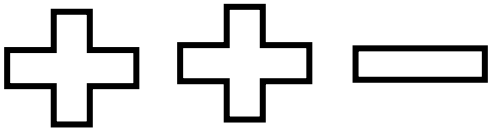
Time: 5 mins.

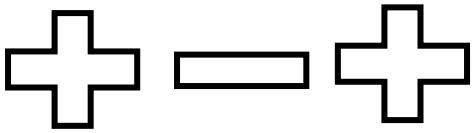
ACTIVITY # 1

DIRECTION: What comes next? Write the letter of your answer on the answer sheet. Number 1 is done for you.

B 1. 

A. 

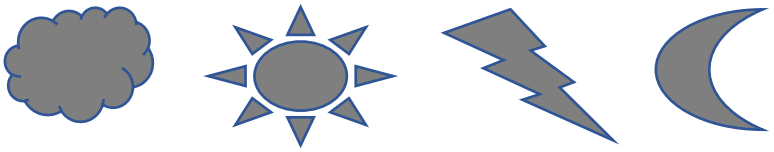
B. 

C. 

D. 

_____ **2.**

A.



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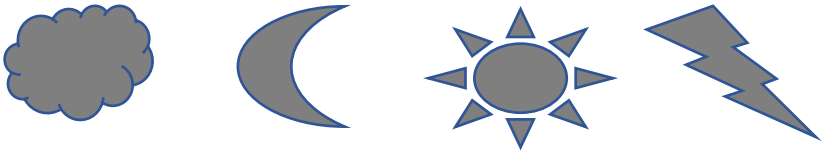

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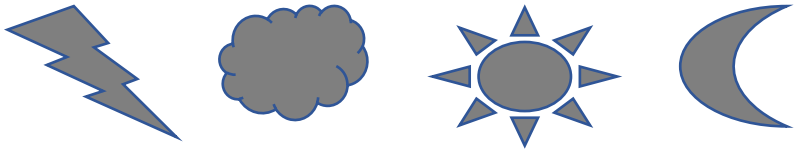

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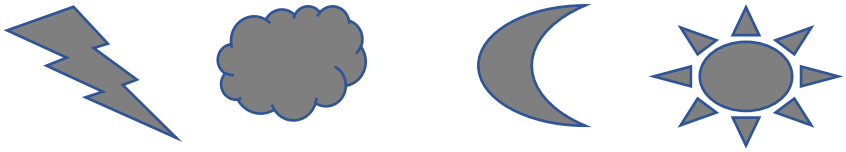

_____ **3.**

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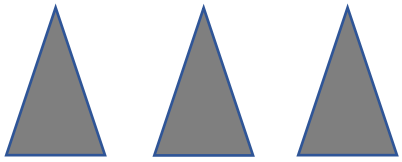

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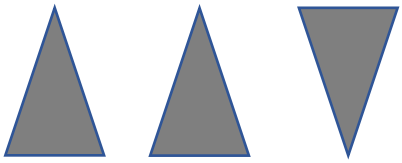

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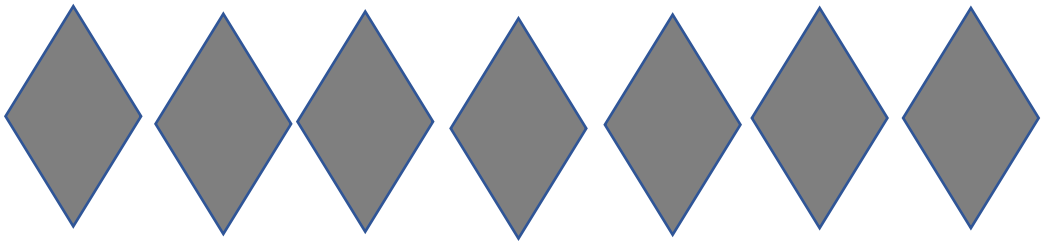
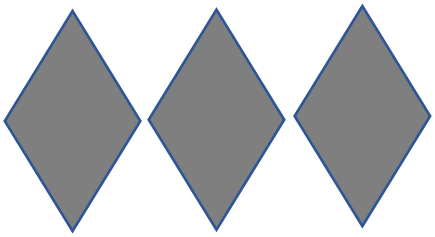
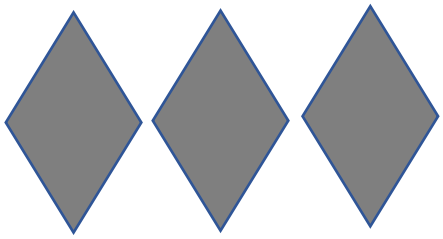
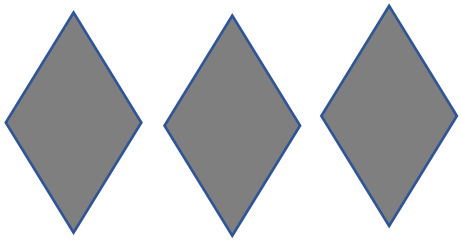
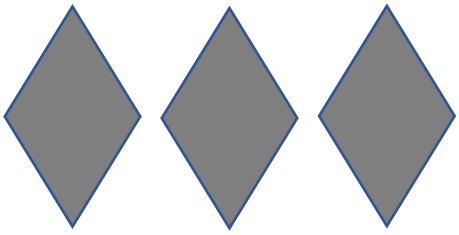
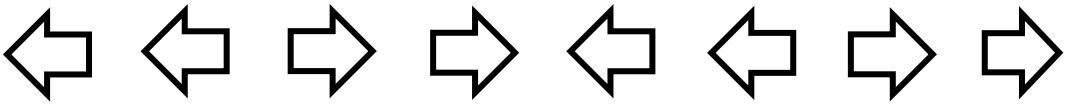
_____4 

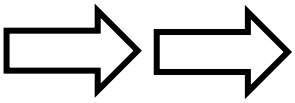
A. 

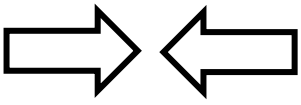
B. 

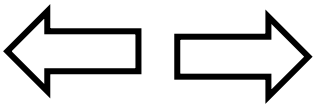
C. 

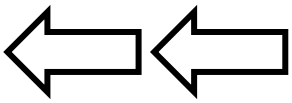
D. 

_____5. 

A. 

B. 

C. 

D. 

■ Say: Volunteers may read aloud and explain their answers in front of the class.

- Positive reinforcements should follow in every correct answer.

Component 2: ***Lesson Purpose/Intention***

Time: 5 mins.

- Examine the figures.

If you are asked to continue the pattern of the figures and colors, what comes next? Why?
The learner will arrange the figures on the board.
Let another learner arrange the figures right beside the first set with the same arrangement.

- **Ask:**
  - What can you say about the set of designs?
  - Are the arrangements of designs repeated?
  - How are they arranged?

ACTIVITY #2

TREASURE HUNT

- Provide toy egg and placed it anywhere inside the classroom.
- Each toy egg must contain question.
- Ask the learner to look for the toy eggs and ask volunteers to share their answer to the class.

DIRECTION: Find the missing terms in the given pattern below.

1. **2, 5, 8, 11, _____, 17, _____**

2. 3, 5, _____, 9, _____

3. 16, 13, _____, 7, _____, 1

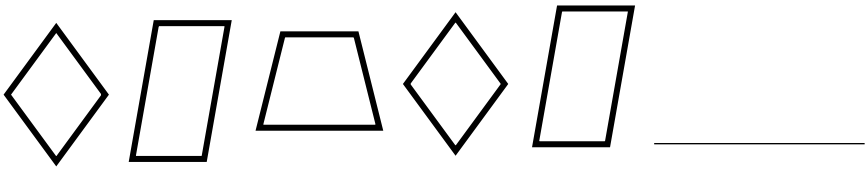
4. 5, 10, 15, _____, 25, _____

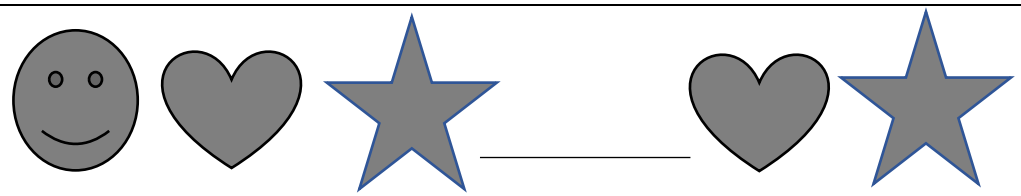
5. 100, _____, 300, 400, _____

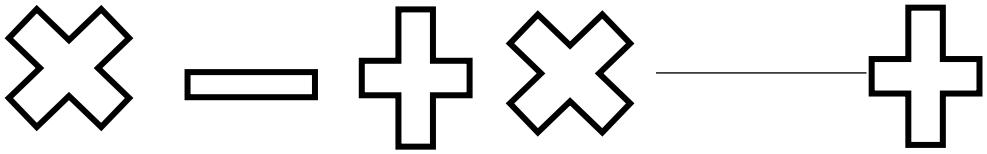
Component 3: *Lesson Practice*

Time: 5 mins.

- Display a pattern card showing a combination of continuous and repeating patterns.







Emphasize that patterns can have a sequence that repeats, or they can continue in a logical order.

- Provide a power point presentation and explain how the shapes represent different elements or objects in the pattern.

- Discuss that it is very important to find the rule in the pattern and to use the rule in determining the missing terms.

- Emphasize that these are the examples of repeating patterns. Repeating patterns are sequences of shapes or numbers that repeat constantly and regularly. One can predict the next term or missing term by looking at the regularity of the shapes or figures or numbers repeated.

ACTIVITY #3
Car Racing Game

- Let five pupils from different groups choose the color of car they want to play.
- Once the pupils reach the finish line, questions will be revealed.
- The first pupil to give the correct answer will be the winner.

Note: Below are the examples to be used.
Complete the pattern.

1. 10, 20, _____, 40, 50

2. 100, _____, 300, 400, 500

3 50, 100, 150, _____, 250

4. 1 000, 2 000, 3 000, 4 000, _____

5. 10, 15, _____, 25

Component 4*: Lesson Activity*

Time: 25 mins.

Component 4A

- Distribute different pattern cards to each group. The pattern card should include an example of continuous and repeat patterns.

- Let the learners work by pair to identify the missing term/s in the pattern cards they received.

- Encourage the learners to explain their work and justify their answer by providing the rule of the pattern.

ACTIVITY #4:

Write the missing term to complete the pattern.

1. J10 I9 _____ G7 F6
2. KK LL _____ NN OO
3. RAT COW RAT _____ _____
4. 22 44 _____ 88 1010
5. 10 7 4 _____ 7 _____

ACTIVITY #5:

Create a pattern using the condition below.

1. The number is 30 then decrease by 6. Then, increase by 3 the next two numbers.
2. The number is 7. Then, decrease the next number by 4.
3. The number is 130. Then, increase the next number by 100.

Component 5: Lesson Conclusion

Time: 5 mins.

- Let the learners sit properly and let them share their experiences while doing the activity on finding the missing terms on the pattern.
- Ask the learners to share which part of the lesson did they find it difficult or challenging.
- Let the pupils remember the following key concepts:
  - How can you identify the missing term/s in each pattern of shapes, figures or numbers?
  - Look how the figures or shapes are arranged and identify which shape/s repeat over and over.
  - Identify the order of the repeated figures.
- How can you find the missing number/s in each pattern or sequence?
  - Determine if the numbers are arranged in increasing or decreasing order.
  - Explore the relationship between the numbers by finding the difference between numbers that are next to each other.
  - Use the difference between numbers to find the missing number.

ACTIVITY #6:

DIRECTION: Read each item carefully. Choose the letter of the correct answer.

1. What is the missing term in the pattern **6, 12, 18, _____, 30.**

A. 21 B. 24 C. 27 D. 28

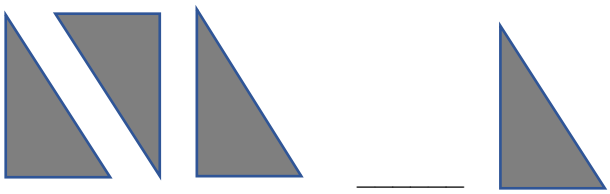
2. Fill in the blanks **4, 8, 12, _____, 20.**

A. 15 B. 16 C. 18 D. 22

3. What comes next in the pattern: **HAPPY, SAD, HAPPY, SAD, _____.**

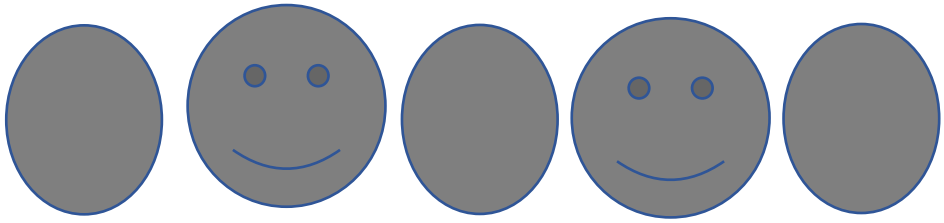
A. ANGRY **B. CRY** **C. HAPPY** **D. SMILE**

4.

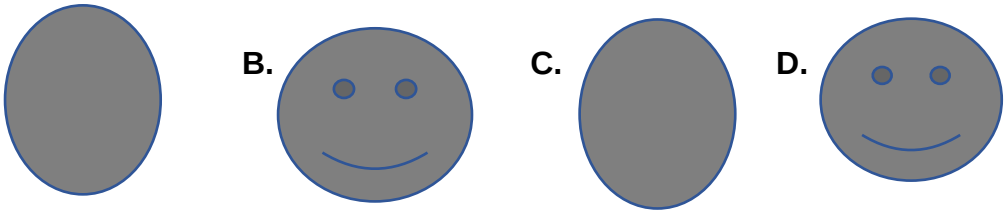


A. **B.** **C.** **D.**

5.



A. **B.** **C.** **D.**



REMINDER: Collect learners' worksheets/answer sheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 6

Adding 3- to 4-digit numbers up to three addends with sums up to 10 000 without and with regrouping

Key Ideas

In adding numbers without regrouping, write the digits in column according to their place values. Add from the right going to the left. Start from ones, then the tens, next, hundreds and the thousands.

In adding numbers with regrouping, write the digits in column according to their place values. Add from the right going to the left. Start from ones, then the tens, next, hundreds and the thousands. If the sum of the ones is more than 9, regroup to the tens place. Do the same if the sum of the tens is more than 9.

Most Essential Learning Competency

- Adds 3- to 4-digit numbers up to three addends with sums up to 10 000 without and with regrouping. **M3NS-Id-27.6**

Component 1: *Lesson Short Review*

Time: 10 mins.

Directions: Do the following exercises. Match your answer with the letters to find the answer in the riddle. Write the letters in the spaces below.

A 56 = 50 + 6
+ 32 = 30 + 2
= ___ + ___
= _____

C 33 = 30 + 3
+ 41 = 40 + 1
= ___ + ___
= _____

R 61 = 60 + 1
+ 16 = 10 + 6
= ___ + ___
= _____

I 45 = 40 + 5
+23 = 20 + 3
= ___ + ___
= _____

H 23 = 20 + 3
+ 32 = 30 + 2
= ___ + ___
= _____

A = 88
C = 74
R = 77
I = 68
H = 55

What has legs but cannot walk?

___ ___ ___ ___ ___
74 55 88 68 77

Call volunteers to give their answers.

Answers:

A 56 = 50 + 6
+ 32 = 30 + 2
= 80 + 8
= 88

C 33 = 30 + 3
+ 41 = 40 + 1
= 70 + 4
= 74

R 61 = 60 + 1
+ 16 = 10 + 6
= 70 + 7
= 77

I 45 = 40 + 5
+23 = 20 + 3
= 60 + 8
= 68

H 23 = 20 + 3
+32 = 30 + 2
= 50 + 5
= 55

What has legs but cannot walk?

C	H	A	I	R
74	55	88	68	77

Component 2: ***Lesson Purpose/Intention***

Time: 3 mins.

Throughout this lesson, we will be exploring adding 3- to 4-digits numbers with three addends with and without regrouping. Now you might be wondering what exactly is regrouping and why it is important in addition. Regrouping occurs when the sum of digits in any place value exceeds 9. Why is it significant? Well, in our base-10 number system, once we reach 10 in any place value we regroup or carry over to the next higher place value column.

Directions: On your drill board, write Regroup if the addition problem needs regrouping, then write Not Regroup if not.

_____ 1. 456 + 278 + 341

_____ 2. 789 + 123 + 366

_____ 3. 523 + 287 + 491

_____ 4. 831 + 242 + 124

_____ 5. 644 + 323 +132

Answer:

1. Regroup 2. Regroup 3. Regroup 4. Not Regroup 5. Not Regroup

Component 3: *Lesson Language Practice*

Terms Matching Game

Directions: Distribute the meta card randomly among the learners. Ensure that each learner receives one term card and one definition card. Let the learner find the matching pair for each term and match it with its corresponding definition. Once done, learners should stand together and read it.

Addends	Numbers to be added.
Regrouping	The results when two or more numbers are added together.
Addition	It is the process of combining two or more numbers.
Sum	It is a process in addition when the sum of the digits in particular place value exceeds 9 and moved to a different place value.

Answers:

Addition is the process of combining two or more numbers.

Addends - Numbers to be added.

Sum - the results when two or more numbers are added together.

Regrouping - It is a process in addition when the sum of the digits in particular place value exceeds 9 and moved to a different place value.

Component 4*: Lesson in Activity*

Time: 25 mins.

Activity 4A

The Grade 3 learners have different collections.

Hobby	Number of Collections
Photocard Collection	123
Board Game Collection	132
Comic Book Collection	213
Trading Card Collection	255
Video Game Collection	124
Toy Car Collection	219

1. How many photocards, board games and comic book collections do the grade 3 learners have?

   123 photocards
   132 board games
   213 comic books

2. What is the sum or total of photocards, board games and comic book collections? Do we need to regroup the numbers? Why?

Expanded Form

123 = 100 + 20 + 3

132 = 100 + 30 + 2

\+ 213 = 200 +10 + 3

468 = 400 + 60 + 8

Short Cut Method

Hundreds	Tens	Ones
1	2	3
1	3	2
+2	1	3
4	6	8

Add the ones.
Next add the tens.
Then add the hundreds.
The sum of photocards, board games and game books is 468
The numbers do not need to be regrouped because the sum of the digits does exceed by 9.

3. How many trading cards, video games and toy car collections do the grade 3 learners have?
There are 255 trading cards, 124 video games, and 219 toy car collections.

4. What is the sum of trading card, video game and toy car collections? Do we need to regroup the numbers? Why?

Expanded Form	Shortcut	Add the ones,
255 = 200 + 50 + 5	1 255	rename as 10 + 8,
124 = 100 + 20 + 4	124	regroup, next add
219 = 200 + 10 + 9	+ 219	tens, then hundreds
500 + 80 + 18	598	
= 598		

5. Lucas collects stamps as a hobby. He has 2 354 stamps from his grandfather ‘s collection, 1 821 stamps from his mother’s collection and 3 472 stamps from his own collection. How many stamps does Lucas have in all?

Expanded Form

2 354 = 2 000 + 300 + 50 + 4

1 821 = 1 000 + 800 + 20 +1

+ 3 472 = 3 000 + 400 + 70 + 2
6 000+1 500+140+ 7

=7 647

Shortcut

1 1	
2 354	Add the ones (4+1+2=7)
1 821	Add the tens (50+20+70=140)
+ 3 472	Rename (140 as 100+ 40)
7 647	Regroup
	Add the hundreds. Rename 1 600 as 1000 + 60
	Regroup
	Then add the thousands

Activity 4B

MATH RELAY RACE

Materials Needed:

1. Addition problem cards involving 3 digits to 4 digits with 3 addends.
2. Markers to designate the start and finish lines.
3. Stopwatch or timer

Directions:

1. Group the players into teams of equal size. Each team should have an equal number of players.
2. Line up the teams behind the start line.
3. When the teacher says “GO”, the first player from each team races to the designated problem-solving where addition problem cards are placed.
4. Once the problem-solving station, the first player draws an addition problem card, solves the addition problem and announces the correct sum to the designated judge.
5. If the answer is correct, the first player returns to their team and tags the next player to continue the race.
6. If the answer is incorrect, the player must return to the addition problem station, correct the mistake and then the race.
7. The race ends when all players on one team have completed the relay race and crossed the finish line.
8. The team that completes the relay race and crosses the finish line first is the winning team.
9. Use timer to record the time taken by each team to complete the relay race.
10. Gather the player to discuss the experience, highlighting any challenges faced and strategies used to solve the addition problems quickly and accurately.

Addition problem card

ADD.

1. 321 =	300 + 20 + 1
226 =	200 + 20 + 6
+ 411 =	400 + 10 + 1
	900 + 50 + 8

2. 413 =	400 + 10 + 3
312 =	300 + 10 + 2
+ 224 =	200 + 20 + 4

3. 243 =	200 + 40 + 3
614 =	600 + 10 + 4
+ 212 =	200 + 10 + 2

4. 1 245 =	1 000 + 200 + 40 + 5
1 312 =	1 000 + 300 + 10 + 2
+ 2 211=	2 000 + 200 + 10 + 1

5. 1 152 =	1 000 + 100 + 50 + 2
2 215 =	2 000 + 200 + 10 + 5
+ 3 311 =	3 000 + 300 + 10 + 1

6. 217 =	200 + 10 + 7
311 =	300 + 10 + 1
+ 450 =	400 + 50 + 0

Answer

1. 958
2. 949
3. 1 069
4. 4 768
5. 6 678
6. 970

Activity 4C

Math Bingo - Adding 3- to 4- digits with 3 addends with and without regrouping

Materials:

- Bingo cards pre-printed with answers to addition problems
- Marker or Bingo Chips for each player
- Addition problem cards or a list of problems to call out
- Bingo caller

Directions:

1. The bingo caller randomly selects an addition problem from the provided cards and reads it aloud to the players.
2. Player solves the sum of the addends in the called -out problem.
3. Each player looks for the correct sum on their bingo card and marks it.
4. Players continue to solve the addition problems and mark their bingo card accordingly.
5. The player completes a horizontal, vertical or diagonal line of marked squares shouts “BINGO” and is declared the winner of that round.

B	I	N	G	O
903	1366	1872	7970	9228
905	1168	1492	8286	9757
971	1362	1870	8030	9317

Addition Problem

1. 1 564 801 + 5 921	2. 350 299 + 254	3. 1 825 4 816 + 3 116	4. 2 162 3 153 + 2 655	5. 2 172 3 521 + 3 624
6. 1 232 2 354 + 4 444	7. 724 316 + 116	8. 6 522 365 + 2 341	9. 365 219 + 321	10. 452 326 + 714
11. 816 721 + 333	12. 425 334 + 212	13. 553 442 + 111	14. 632 421 + 313	15. 241 654 + 467

Answer:

1. 8 286
2. 903
3. 9 757
4. 7 970
5. 9 317
6. 8 030
7. 1 156
8. 9 228
9. 905
10. 1 492
11. 1 870
12. 971
13. 1 106
14. 1 366
15. 1 362

Component 5: Lesson Conclusion

Time: 5 mins.

- In adding numbers with 3 addends, when to regroup or when not to regroup numbers?
- Were you able to apply the strategies and techniques taught in class to solve problems accurately? Give strategies and techniques.
- Do you have any difficulties experienced during the lesson?
- Say: “I am proud of the progress you have made and I look forward to seeing your continued growth in mathematics.

REMINDER: Collect learners’ worksheets to review and analyze their learning.

Mathematics Grade 3 Lesson Plan 7

Visualizes, Represents, and Subtracts 3-digit to 4-digit numbers without and with regrouping.

Key Idea

Subtraction with and without regrouping

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation using concrete objects or pictures.

1) $89 - 85 =$ _____

2) $98 - 63 =$ _____

3) $11 - 4 =$ _____

4) $13 - 8 =$ _____

5) $15 - 9 =$ _____

Answers

1) 4 2) 35 3) 7 4) 5 5) 6

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about subtracting numbers using concrete objects. Today we will subtract 3-digit to 4-digit numbers with or without regrouping.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Subtract, With regrouping, Without regrouping

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Angelo is tasked to find the difference between the numbers below.

1. a) 9 – 3 b) 8 – 5 c) 7 – 6 d) 987 – 356
2. a) 3 – 0 b) 6 – 5 c) 4 – 1 d) 364 – 51

He is also asking you to do the same so that he can compare his answers with your answers.

Item 2: Veronica is tasked to find the difference between the numbers below.

1. a) 7 – 6 b) 15 – 7 c) 85 – 67
2. a) 10 – 9 b) 11 – 7 c) 10 – 8 d) 1120 – 978

3. a) 1,000 – 1 b) 785 – 1 c) 9 – 7 d) 9 – 8 e) 9 – 4 f) 1,000 – 785

She is also asking you to do the same so that she can compare her answer with your answer.

Part 4B

Item 1

Questions

Let us compare your answer with his.

1. What is your answer in 1a, b, c, and d?

2. What have you observed in your answers in a, b, and c as compared to d?

3. What is your answer in 2a, b, c, and d?

4. What have you observed in your answers in a, b, and c as compared to d?

Answers to Item 1

1. You can write it vertically to align the place values and subtract the numbers on the same place value.

a. 9 − 3 6	b. 8 − 5 3	c. 7 − 6 1	d. 9 8 7 − 3 5 6 6 3 1

2. The answer may vary.

-(Possible answer) The difference of two numbers with many digits is obtained by subtracting the digits with the same place values.

3. You can write it vertically to align the place values and subtract the numbers on the same place value.

a. 3 − 0 3	b. 6 − 5 1	c. 4 − 1 3	d. 3 6 4 − 5 1 3 1 3

4. Same with number 2.

Part 4C

Item 2

Questions

Let us compare your answer with hers.

1. What is your answer in 1a, b, and c?

2. What is your answer in 2a, b, c, and d?

3. What is your answer in 3a, b, c, d, e, and f?

Answers to Item 2

Method 2 is a strategy to avoid much of regrouping. The first few items will lead to understanding the regrouping and method 2.

1. You can write it vertically to align the place values.

a) $\begin{array}{r} 8\,5 \\ -\ 6\,7 \\ \hline \end{array}$ *method 1*: regroup 85 becomes $7\,15$, 67 is still $\begin{array}{r} -\ 6\ 7 \\ \hline 1\ 8 \end{array}$

method 2: Note that $9 - 5 = 10 - 6 = 8 - 4 = 4$. This means that if you add or subtract the same quantity from the minuend and the subtrahend, the difference is still the same. Thus, we can have (we need a strategy for doing this)

$$\begin{array}{r} 8\,5 + 3 = 8\,8 \\ -\ 6\,7 + 3 = \underline{7\,0} \\ 1\,8 \end{array}$$

In this method, we can avoid regrouping (borrowing).

2. You can write it vertically to align the place values.

b) $\begin{array}{r} 1\,1\,2\,0 \\ -\ \ 9\,7\,8 \\ \hline \end{array}$ *method 1*: 11 2 0 becomes $10\,11\,10$, 9 7 8 is still $\begin{array}{r} 9\ 7\ 8 \\ \hline 1\ 4\ 2 \end{array}$

method 2:

$$\begin{array}{r} 1120 + 22 = 1\,1\,4\,2 \\ 978 + 22 = \underline{1\,0\,0\,0} \\ 1\,4\,2 \end{array}$$

3. You can write it vertically to align the place values.

c) $\begin{array}{r} 1\,0\,0\,0 \\ -\ \ 7\,8\,5 \\ \hline \end{array}$ *method 1*: 10 0 0 becomes $9\ 9\ 10$, 7 8 5 is still $\begin{array}{r} 7\ 8\ 5 \\ \hline 2\ 1\ 5 \end{array}$

method 2: In this case, it is better to subtract 1 from each number.

$$\begin{array}{r} 1000 - 1 = 9\,9\,9 \\ 785 - 1 = \underline{7\,8\,4} \\ 2\,1\,5 \end{array}$$

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What were the key mathematical concepts addressed in this lesson?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?

- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 8

Solves Routine and Non-routine Problems Involving Subtraction of Whole Numbers Including Money using Appropriate Problem-Solving Strategies and Tools.

Key Idea

Problem-Solving Involving Subtraction

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation using concrete objects/pictures.

1) $85 - 72 =$ _____

2) $200 + 250 =$ _____

3) $198 - 76 =$ _____

4) $385 - 182 =$ _____

5) $500 - 385 =$ _____

Answers

1) 13 2) 450 3) 122 4) 203 5) 115

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about subtracting numbers without and with regrouping. Today we will solve problems involving subtraction.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Problem-solving, subtraction

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Mariel has 385 cm of ribbon and she used 182 cm of it for her first project. She will use the remaining ribbon for her second project.

Item 2: Belle bought a pair of socks worth ₱ 200 and a set of handkerchiefs worth ₱ 250. She hands in ₱ 500 to the cashier.

Part 4B

Item 1

Questions

1. How long was Mariel's ribbon before she used it?
2. What is the length of the ribbon she used for her first project?
3. How long is left for her second project?

Answers to Item 1

1. She has 385 cm of ribbon.

2. She used 182 cm for her first project.

3. 3 8 5 cm
   − 1 8 2 cm
   2 0 3 cm is left for her second project.

Part 4C

Item 2

Questions

1. What is the total amount of items she bought?

2. How much change will she receive from the cashier?

Answers to Item 2

1. The total amount of items she bought is
   ₱ 2 0 0
   + ₱ 2 5 0
   ₱ 4 5 0

2. The change that she will receive is
   ₱ 5 0 0
   − ₱ 4 5 0
   ₱ 5 0

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What were the key mathematical concepts addressed in this lesson?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 9

Multiplies Numbers:

a. 2- to 3-digit numbers by 1-digit numbers without or with regrouping
b. 2-digit number by 2-digit numbers without or with regrouping
c. 2- to 3-digit numbers by multiples of 10 and 100

Key Idea

Multiplication

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) 8 × 4

2) 3 × 3

3) 7 × 7

4) 6 × 9

5) 8 × 7

Answers

1) 32 2) 9 3) 49 4) 54 5) 56

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication in the previous grade level. Today we will learn to multiply numbers with at least one digit. This strategy will always work no matter how many digits we are multiplying.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Multiplication, more than one digit.

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Teacher Vina told her pupils to give the product using any method they had learned in the previous grade level.

1. a) 4 × 2 b) 3 × 2 c) 2 × 2 d) 234 × 2
2. a) 4 × 6 b) 3 × 6 c) 2 × 6 d) 234 × 6
3. a) 3 × 2 b) 4 × 2 c) 3 × 1 d) 4 × 1 e) 43 × 12
4. a) 5 × 7 b) 8 × 7 c) 5 × 6 d) 8 × 6 e) 85 × 67

Item 2: Teacher Rhea told her pupils to multiply these numbers.

I. a) 584 × 1 b) 584 × 10 c) 584 × 100 d) 584 × 1000
II. a) 42 × 2 b) 42 × 20 c) 42 × 200 d) 42 × 2000
III. a) 458 × 3 b) 458 × 30 c) 458 × 300 d) 458 × 3000

Part 4B

Item 1

Questions

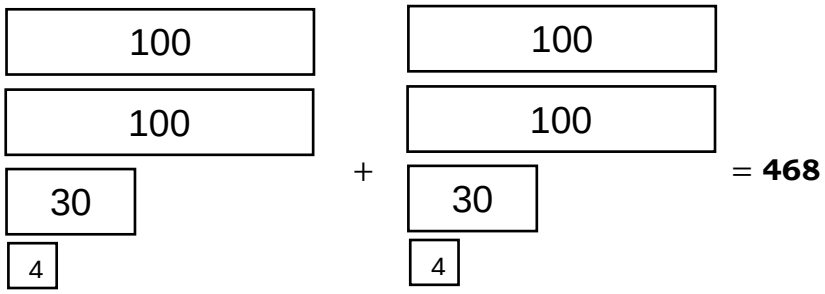
1) Give the product for each item using the method that you have learned in the previous year.

2) Which method among the methods that you used can give you the answer faster/est?

Answers to Item 1

1) a. 8 b. 6 c. 4

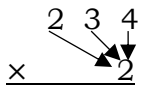
d) method 1: We know that $234 \times 2 = 2 \times 234$. So, we have



method 2: We know that $234 \times 2 = 2 \times 234$. So, we have

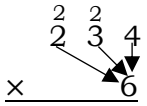
$$234 \times 2 = 234 + 234 = \mathbf{468}$$

Method 3:



4 6 8

2. a) 24 b) 18 c) 12 d)



14 0 4

3. a) 6 b) 8 c) 3 d) 4 e) 516

4. a) 35 b) 56 c) 30 d) 48 e) 5695

2) The answers may vary.

Part 4C

Item 2

Questions/Instructions

1. Can you find the product of each item?

2. What pattern have you observed in multiplying a number by 1, 10, 100, and 1000?

3. What pattern have you observed in multiplying a number by 2, 20, 200, and 2000?

4. What if the number of zeroes will increase? What do you think will happen to the product?

Answers to Item 2

1. I. a. 584 b. 5,840 c. 58,400 d. 584,000
   II. a. 84 b. 840 c. 8,400 d. 84,000
   III. a. 1,374 b. 13,740 c. 137,400 d. 1,374,000

2. The answers may vary. – *Just multiply the number by 1 then affix the zeros.*
3. The answers may vary. – *Just multiply the number by 2 then affix the zeros.*
4. The answers may vary. – *No matter how many consecutive (trailing) zeroes we have, simply affix it to the product after multiplying the numbers before it.*

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 10

Solves Routine and Non-routine Problems Involving Multiplication without or with Addition and Subtraction of Whole numbers including money using appropriate problem-solving strategies and tools**.**

Key Idea

Multiply, Add, Subtract

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation.

1) 37×100

2) 24×5

3) 27×23

4) $8 \times (9 - 5)$

5) $6 \times 3 + 5 \times 4$

Answers

1) 3,700

2) 370

3) 7,221

4) 32

5) 38

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about addition, subtraction, and multiplication in our next lesson. Today we will learn to solve problems involving multiplication with or without addition and subtraction.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Problem-Solving, Multiplication, Addition, Subtraction, Revenue

Lesson Component 4 (Lesson Activity)

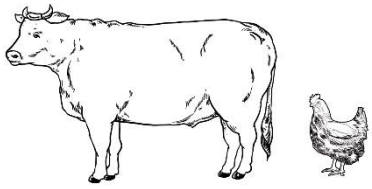
Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: MJ bought 5 apples which cost ₱ 26 each and 4 oranges which cost ₱ 24.

Item 2: On a farm, there are cows and hens. Each cow has 4 feet, and each hen has 2 feet.



Part 4B

Item 1

Questions

1. How much should MJ pay for 5 apples?
2. How much should MJ pay for 4 oranges?
3. How much should MJ pay for all the fruits he bought?
4. If you buy 10 apples, how much would you pay?
5. If you buy 20 oranges, how much would you pay?

Answers to Item 1

1. ₱ 130
2. ₱ 96
3. ₱ 130 + ₱ 96 = ₱ 226
4. ₱ 260
5. ₱ 480

Part 4C

Item 2

Questions

1. What is the total number of cow's feet if there are 8 cows?
2. What is the total number of hen's feet if there are 12 hens?
3. Count the total number of feet in the farm if there are 8 cows and 12 hens.

Answers to Item 2

1. A cow has 4 feet and there are 8 cows. So, there are $8 \times 4 = 32$ feet.
2. A hen has 2 feet and there are 12 hens. So, there are $12 \times 2 = 24$ feet.
3. Therefore, there are $8 \times 4 + 12 \times 2 = 32 + 24 = 56$ feet in total.

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 11

Visualizes division of numbers up to 100 by 6, 7, 8, and 9 (multiplication table of 6, 7, 8, and 9).

Key Idea

Divide

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Instructions: Complete the portion of the multiplication table shown below.

Table 6	Table 7	Table 8	Table 9
6 × 2 = _____	7 × 3 = _____	8 × 2 = _____	9 × 2 = _____
6 × 3 = _____	7 × 4 = _____	8 × 5 = _____	9 × 4 = _____
6 × 7 = _____	7 × 7 = _____	8 × 6 = _____	9 × 6 = _____
6 × 9 = _____	7 × 8 = _____	8 × 9 = _____	9 × 7 = _____

Answers

Table 6	Table 7	Table 8	Table 9
6 × 2 = **12**	7 × 3 = **21**	8 × 2 = **16**	9 × 2 = **18**
6 × 3 = **18**	7 × 4 = **28**	8 × 5 = **40**	9 × 4 = **36**
6 × 7 = **42**	7 × 7 = **49**	8 × 6 = **48**	9 × 6 = **54**
6 × 9 = **54**	7 × 8 = **56**	8 × 9 = **72**	9 × 7 = **63**

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication in our next lesson. Today we will learn to divide whole numbers up to 100 with divisors 6, 7, 8, or 9.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division, Multiplication Table

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Jboy will share 18 marbles and 6 of his friends want to have it.

Item 2: Alyssa was given a multiplication table and asked to answer the following.

a) 16 ÷ 8
b) 21 ÷ 7

c) 48 ÷ 8
d) 90 ÷ 9
e) 24 ÷ 6

Part 4B

Item 1

Questions

1. Using 18 real marbles, show the number of marbles that each of his friends will get if all of them will get an equal number of marbles.
2. Using the multiplication table, how many marbles will each of his friends get if all of them will equal number of marbles?

Answers to Item 1

1. The learners/teachers can demonstrate it.
2. Since 6 × 3 = 18, then 18 ÷ 3 = 6 and 18 ÷ 6 = 3. Because Jboy needs to divide the 18 marbles to 6 of his friends, then each of them will get 18 ÷ 6 = 3 marbles.

Part 4C

Item 2

Question/Instruction

Using the multiplication table, answer each item.

Answers to Item 2

a) Note that 8 × 2 = 16. Hence, 16 ÷ 8 = 2.
b) Note that 7 × 3 = 21. Hence, 21 ÷ 7 = 3.
c) Note that 8 × 6 = 48. Hence, 48 ÷ 8 = 6.
d) Note that 10 × 9 = 90. Hence, 90 ÷ 9 = 10.
e) Note that 6 × 4 = 24. Hence, 24 ÷ 6 = 4.

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
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Mathematics Grade 3 Lesson Plan 12

Visualizes and States Basic Division Facts of Numbers up to 10.

Key Idea

Divide

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Divide each of the following.

1) If 5 × 3 = 15, what is 15 ÷ 5?

2) 6 ÷ 1

3) 0 ÷ 7

4) 8 ÷ 8

5) How many times can you subtract 4 from 20 until it reaches zero?

Answers

1) 3

2) 6

3) 0

4) 1

5) 5 times

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication and subtraction in our next lesson. Today we will learn the basic division facts.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division Facts, Nonzero

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Study and understand the table below.

Dividing any number by one	Zero Divided by Any Nonzero Number	Dividing a Nonzero Number by Itself
8 ÷ 1 = **8**	0 ÷ 7 = **0**	7 ÷ 7 = **1**
15 ÷ 1 = **15**	0 ÷ 8 = **0**	12 ÷ 12 = **1**
37 ÷ 1 = **37**	0 ÷ 9 = **0**	35 ÷ 35 = **1**
175 ÷ 1 = **175**	0 ÷ 10 = **0**	123 ÷ 123 = **1**
1,765 ÷ 1 = **1,765**	0 ÷ 25 = **0**	3,124 ÷ 3,124 = **1**

Item 2: Nick and Vince were tasked to answer 35 ÷ 7 and to show their solutions on the board.

Nick's solution: Since, 7 × 5 = 35, then 35 ÷ 7 = **5**.

Vince's solution: Using repeated subtraction,

35 – 7 = 28
28 – 7 = 21
21 – 7 = 14
14 – 7 = 7
7 – 7 = 0

Because I subtracted 7 **five times** before the number gets 0 (or less than 7), then 35 ÷ 7 = **5**.

Part 4B

Item 1: *For the intervention camp, the answers are already provided so that the learners can focus on observing.*

Questions

1. What have you observed in column 1?
2. What have you observed in column 2?
3. What have you observed in column 3?
4. Using your observations, answer the following.

   a. 0 ÷ 859 = _____

   b. 10,235 ÷ 10,235 = _____

   c. 98 ÷ 1 = _____

Answers to Item 1

1. If a number is divided by 1, the quotient is equal to the number itself. In symbol, say N is a number, $N \div 1 = N$.
2. If zero is divided by any number that is not zero, the quotient is equal to zero. In symbol, say N is a number, $0 \div N = 0$.
3. If a number that is not zero is divided by itself, the quotient is equal to one. In symbol, say N is a nonzero number, $N \div N = 1$.

4. a. 0 b. 1 c. 98

Part 4C

Item 2

Questions

1. What can you say about Nick's solution?
2. What can you say about Vince's solution?
3. Can you compare their solutions? Which one is easier? Which one is faster?

Answers to Item 2

Answers for numbers 1 to 3 may vary.

Some basic division facts include
- It can be done using multiplication facts
- It can be done by repeated subtraction
-

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 13

Divides numbers without or with remainder:

a. 2- to 3-digit numbers by 1- to 2- digit numbers
b. 2- to 3-digit numbers by 10 and 100

Key Idea

Division

Lesson Component 1 (Lesson Short Review)

Time: 7 minutes

Directions: Perform the indicated operation. You can use concrete objects if you need to.

1) 24 ÷ 8 =

2) 12 ÷ 4 =

3) 36 ÷ 9 =

4) 45 ÷ 5 =

5) 18 ÷ 6 =

Answers

1) 3 2) 3 3) 4 4) 9 5) 3

Lesson Component 2 (Lesson Purpose/Intention)

Time: 3 minutes

Teacher states:

We can use what we have learned about multiplication and basic division facts in the previous grade level. Today we will learn to divide 2- to 3-digit numbers by 1- to 2-digit numbers with or without remainder.

Lesson Component 3 (Lesson Language Practice)

Time: 5 minutes

Key words/terms are:

Division, Dividend, Divisor, Remainder

Lesson Component 4 (Lesson Activity)

Time: 25 minutes

Part 4A

Stem for Items 1 and 2

Item 1: Teacher Tin told her pupils to divide each of the following using any method they had learned in the previous lessons.

a) 24 ÷ 2 c) 24 ÷ 6 e) 17 ÷ 8 g) 248 ÷ 8

b) 336 ÷ 3 d) 24 ÷ 12 f) 26 ÷ 12 h) 545 ÷ 15

Item 2: Flor was absent the day a division technique was taught. He borrowed Isidro's notes and saw these examples:

If the divisor is 10	If the divisor is 100
580 ÷ 10 = **58**	900 ÷ 100 = **9**
7300 ÷ 10 = **73**	5600 ÷ 100 = **56**
673 ÷ 10 = **67 remainder 3**	759 ÷ 100 = **7 remainder 59**
85 ÷ 10 = **8 remainder 5**	9850 ÷ 100 = **98 remainder 50**

Part 4B

Item 1

Questions/Instructions

1) If you are a pupil of teacher Tin, what will be your answer to each of the given item?

2) Are there any items having remainders? What are they?

3) Is it possible to have a remainder that is greater than the divisor?

Answers to Item 1

Use long division to answer some items.

1) a. 12 c. 4 e. 2 r.1 g. 31

b. 112 d. 2 f. 2 r.2 h. 36 r.5

2) Yes, e, f, and h.

3) No

Part 4C

Item 2

Questions

1) What have you observed when a number is divided by 10?
2) What have you observed when a number is divided by 100?
3) Using your observations, answer the following questions quickly.
   a) 760 ÷ 10
   b) 87 ÷ 10
   c) 654 ÷ 10
   d) 760 ÷ 100
   e) 8700 ÷ 100
   f) 6,543 ÷ 100

Answers to Item 2

1. Answers may vary. Here is a possible answer.
- The quotient is obtained by removing the units or one's digit and the units or once digit is its remainder.
2. Answers may vary. Here is a possible answer.
- The quotient is obtained by removing the last two digits and the last two digits is its remainder.

In 759 ÷ 100, the divisor has **2** zeroes. So, we need to separate/remove the **last two digits** of 759 making it 7 and 59. The remaining digits is the quotient, and the last two digits is the remainder. Thus, 759 ÷ 100 = 7 r.59.

3. a. 76 b. 8 r.7 c. 65 r.4 d. 7 r.60 e. 87 f. 65 r.43

Lesson Component 5 (Lesson Conclusion – Reflection/Metacognition on Student Goals)

Time: 5 minutes

The teacher facilitates student reflection and discussion, that addresses such questions as:

- What do you think were the key mathematical concepts addressed in this lesson?
- Would you rate your level of understanding of the material covered in this lesson as high, moderate, or low?
- Has the lesson helped you to gain further insight into aspects of the material covered that represent strengths or weaknesses?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement to the topic area addressed in this lesson?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?

Mathematics Grade 3 Lesson Plan 14

Mga Point, Linya (Line), Line Segment at Ray

Key Idea

Recognizes and draws a point, line, line segment and ray.
(Pagkilala at Pagguhit ng mga Points, Linya, Line Segments at Ray)

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Pagsusuri sa Aralin)

Time: 7 mins.
Oras: 7 minuto.

PRE-TEST
Directions: Encircle the letter that corresponds to the correct answer.
(**Panuto**: Bilugan ang letra ng tamang sagot)

1. Ang tuldok o dot ay kumakatawan sa _____.

   a. Line b. Ray c. Point d. Line Segment

2. Ang _____ ay maaring lumawig nang walang katapusan sa magkabilang direksyon.

   a. Point b. Line c. Segment d. Dot

3. Ang Ray ay bahagi ng linya na binubuo ng isang endpoint at _____. .

   a. arrowhead b. endpoint c. Line d. Dot

4. Ang Line Segment ay bahagi rin ng linya na may _____ endpoint.

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

5. Ang simbolong ito $\overleftrightarrow{\quad}$ ay kumakatawan sa _____ .

   a. Segment b. Ray c. Line d. Point

Answers:
Sagot: *Q1. C Q2. B Q3. A Q4. B Q5. C*

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto.

Teacher states: *For us to embark on the understanding of points, lines, line segments, and rays, we will delve into the realm of geometric concepts. Our journey includes exploring the definitions and properties of these fundamental elements, offering a hands-on approach to visualizing their characteristics through drawing and identification exercises. Through this process, we aim to deepen our understanding of geometric concepts, develop spatial reasoning skills, and apply appropriate strategies to analyze and solve geometric problems in various contexts.*

- *Upang tayo'y mag-umpisa sa pag-unawa ng mga point, line, line segment, at ray, tayo ay titingin sa larangan ng mga konsepto sa Geometry. Ang ating paglalakbay ay maglalaman ng pagtuklas sa mga kahulugan at katangian ng mga pangunahing elementong ito, na nag-aalok ng praktikal na paraan sa pag-visualize ng kanilang mga katangian sa pamamagitan ng mga gawaing pagguhit at pagkilala sa mga ito. Sa pamamagitan ng prosesong ito, layunin nating palalimin ang ating pag-unawa sa mga konsepto ng Geometry, lumago sa ating kakayahan sa spatial reasoning, at mag-aplay ng angkop na mga paraan sa pagsusuri at paglutas ng mga problemang Geometry sa iba't ibang konteksto.*

Component 3: (Lesson Language Practice)
Bahagi 3: (Pagsasanay sa Wika ng Aralin)

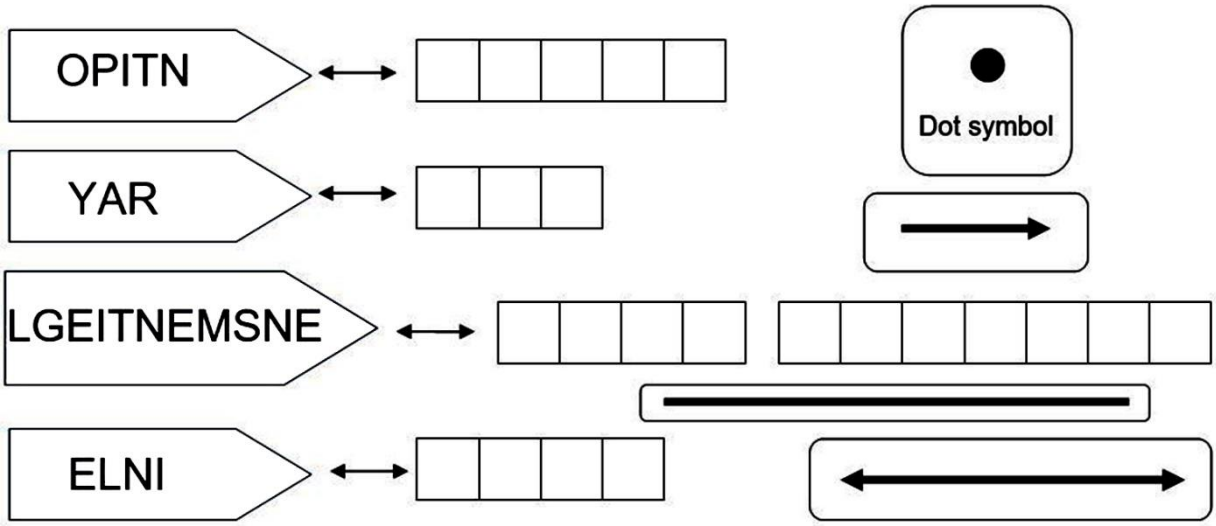
Time: 5 mins.
Oras: 5 minuto.

Keywords/terms are:
Pangunahing Salita:

Point, line, line segment, and ray.

Activity 3: GEOMBLE WORDS!

Directions: Unscramble these four Jumbles, one letter to each square, to form four ordinary words**.**
Panuto: *Ayusin ang apat na Jumbles na ito, isang titik sa bawat kuwadrado, upang makabuo ng apat na karaniwang salita.*



Processing Questions:

1. What strategies did you use to decode the geometric concepts in the Geomble Words?
   Anong mga pamamaraan ang ginamit mo upang matukoy ang mga konseptong geometric sa Geomble Words.
2. Which geometric concepts were the most challenging to understand? Why?
   Aling mga konseptong geometric ang pinakamahirap unawain? Bakit?
3. How do these geometric concepts relate to managing shapes and making decisions related to geometry?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometry?
4. Can you provide real-life examples or situations where you might encounter these geometric concepts?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

Time: 25 mins.
Oras: 25 minuto*.*

Component 4A

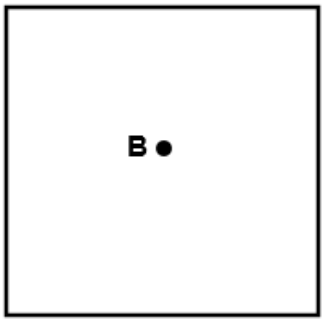
Initial Concepts *(Panimulang Konsepto)*

In the world of mathematics, the study of Points, Lines, Line Segments, and Rays is important. Let's delve into these key terms that will serve as your guide in studying this lesson.
Sa mundo ng matematika ang pag aaral ng mga Point, Linya (Line), Line Segment at Ray ay mahalaga. Pag-aralan natin ang mahahalagang salitang ito na magiging gabay ninyo sa pag-aaral ng araling ito.

What is a Point?

It is the exact position or location on a plane surface. The dot (•) represents a point. It can be named with a letter. For example: Point A, which can be written in a figure as (• A).

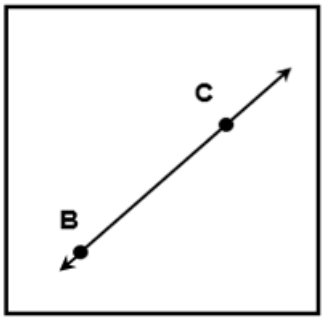
Ano nga ba ang Point? Ito ay ang eksaktong posisyon o lokasyon sa isang plane surface. Ang tuldok o dot (•) ay kumakatawan sa point. Ito'y maaaring pangalanan ng letra. Halimbawa: Point A, ito'y maaring isulat sa figure na ito (• A)



What is a Line?

The figure with two arrowheads at both ends is called a line. A Line may extend endlessly in both directions.

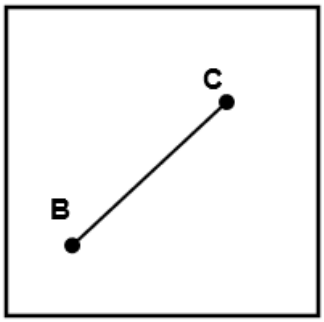
Ano nga ba ang Linya (Line)? Ang figure na ito na may dalawang arrowhead sa magkabilang dulo ay tinatawag na linya (line). Ang Linya (Line) ay maaaring lumawig ng walang katapusan sa magkabilang dulo.



What is a Line Segment?

A line segment is a part of a line with two endpoints. It cannot extend endlessly in any direction.

Ano nga ba ang Line Segment? Ang line segment ay bahagi ng linya na may dalawang endpoint. Hindi ito maaaring lumawig ng walang katapusan sa anumang direksyon.



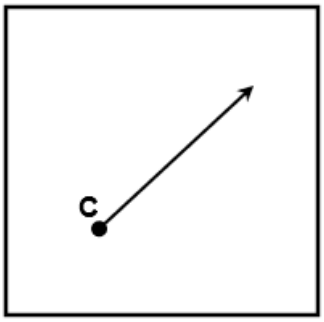
What is a Ray?

A ray is a part of a line consisting of one endpoint and an arrowhead that can extend endlessly in any direction.

Ano nga ba ang Ray? Ang ray ay bahagi ng linya na binubuo ng isang endpoint at arrowhead na maaring lumawig ng walang katapusan sa anumang direksyon.

In this lesson, students are expected to recognize and draw Points, Lines, Line Segments, and Rays.

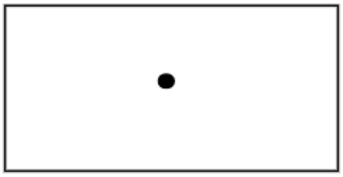
Sa araling ito inaasahang makikilala at maiguguhit ng mga mag-aaral ang mga Point, Linya (Line), Line Segment, Ray.

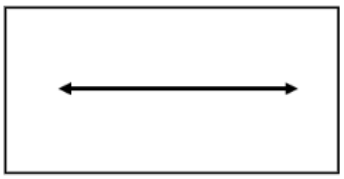


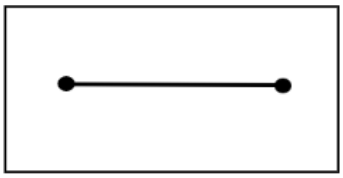
Component 4B

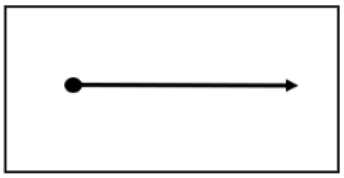
Activity 4: Figure Recognition Challenge: Points, Lines, Line Segments, and Rays"

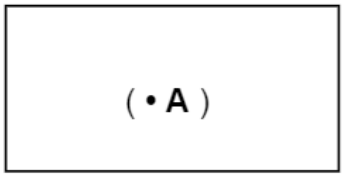
Instructions: Identify the figures inside the box. Name whether it is a Point, Line, Line Segment, or Ray. Write the correct answer in the blank space.
Panuto: *Kilalanin ang mga figures na nasa loob ng kahon. Pangalanan kung ito ay Point, Linya (Line), Line Segment o Ray. Isulat sa patlang ang tamang sagot.*

1. 

2. 

3. 

4. 

5. 

Answers:

Point, Line, Line Segment, Ray, Point

Component 4C

Instruction: A. Fill in the blank with the correct word to complete the sentence.
Panuto: Punan ng tamang salita ang patlang upang mabuo ang pangungusap.

POINT	**RAY**	**LINE**
	LINE SEGMENT	**DOT o TULDOK**

1. Ang _____ ay may dalawang arrowhead sa magkabilang dulo.
2. Ang _____ ay figure na may isang endpoint at arrowhead.
3. Ang _____ ay may dalawang endpoint.
4. Ang _____ ay maaring pangalanan ng letra.
5. Ang simbolo ng point ay _____.

Instruction: B. Draw inside the box what each number requests
Panuto: *Iguhit sa loob ng kahon ang hinihingi ng bawat bilang.*

1. Line

2. Point

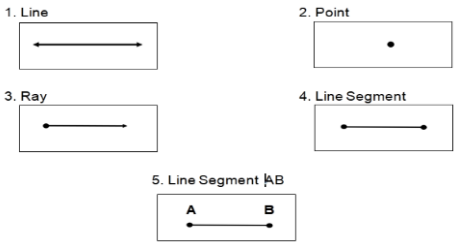
3. Ray

4. Line Segment

5. Line Segment AB

Answers:

A. Line, Ray, Line Segment, Point, dot or tuldok *B.*



Component 5: Lesson Conclusion (Lesson Conclusion – Reflection/Metacognition on Student Goals)
Bahagi 5: Pagtatapos ng Aralin (Pagtatapos ng Aralin – Pagmumuni-muni/Tunay na Pag-iisip Tungkol sa Mga Layunin ng Mag-aaral)
Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
Ang guro ay magpapamalas ng pagmumuni-muni at pag-uusap ng mga mag-aaral, na tumutukoy sa mga sumusunod na tanong:

- What were the key mathematical concepts addressed in this lesson?
  Ano ang mga pangunahing konsepto sa matematika na tinalakay sa araling ito?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
  Paano mo ie-rate ang iyong pag-unawa sa materyal na tinatalakay sa araling ito bilang mataas, katamtaman, o mababa?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?
  Nakatulong ba ang aralin sa iyo upang mas maunawaan ang mga aspeto ng materyal na tinatalakay na nagpapakita ng lakas o kahinaan?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
  Ano ang iyong maipapaliwanag bilang pangunahing hadlang, kung meron man, sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na tinatalakay sa araling ito?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?
  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

Mathematics Grade 3 Lesson Plan 15

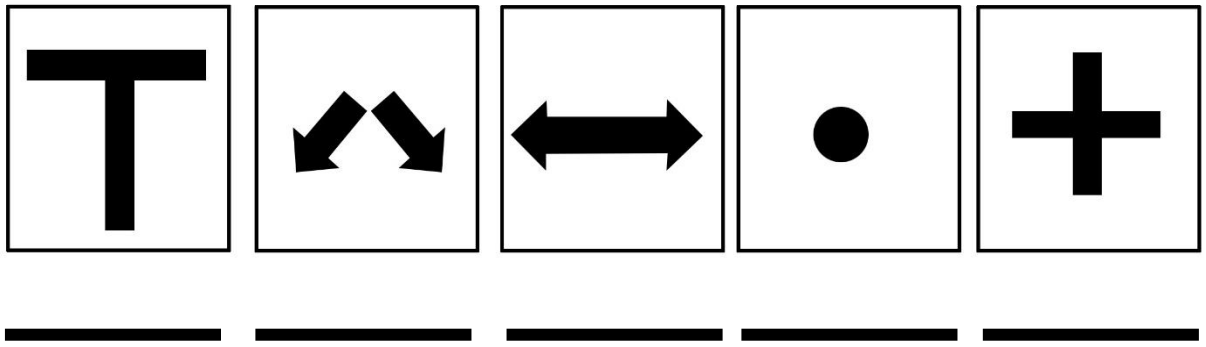
Perpendicular, Parallel and Intersecting Lines

Key Idea
Recognizes and draws parallel, intersecting, and perpendicular lines.
(*Nakakakilala at nagguhit ng parehong, nagtutunggali, at nangtuwirang mga linya.)*

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Pagsusuri sa Aralin)

Time: 7 mins.
Oras: 7 minuto*.*

Directions: Label each sign below. Write point, line, line segment, and ray.
Panuto: Lagyan ng tanda ang bawat larawan sa ibaba. Isulat kung ito ay point, line, line segment at ray.



Sagot: Line segments, rays, line, point and line segments.

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto*.*

Teacher states: *For us to embark on recognizing and drawing parallel, intersecting, and perpendicular lines. Our journey includes exploring the definitions and properties of these fundamental elements, offering a hands-on approach to visualizing their characteristics through drawing and identification exercises. Through this process, we aim to deepen our understanding of geometric concepts, develop spatial reasoning skills, and apply appropriate strategies to analyze and solve geometric problems in various contexts.*

- *Upang tayo'y magtungo sa pagkilala at pagguhit ng mga parallel, nagtatagpong linya at perpendikular na mga linya. Ang ating paglalakbay ay kasama ang pagsusuri sa mga kahulugan at katangian ng mga pangunahing elementong ito, nag-aalok ng praktikal na paraan sa pagpapakita ng kanilang mga katangian sa pamamagitan ng mga gawaing pagguhit at pagkilala. Sa pamamagitan ng prosesong ito, layunin nating palalimin ang ating pang-unawa sa mga konsepto ng heometriya, mag-develop ng kakayahang pang-espasyo, at mag-aplay ng angkop na mga estratehiya sa pagsusuri at paglutas ng mga pangheometriko at problema sa iba't ibang konteksto.*

Component 3: (Lesson Language Practice)

Bahagi 3: (Pagsasanay sa Wika ng Aralin)

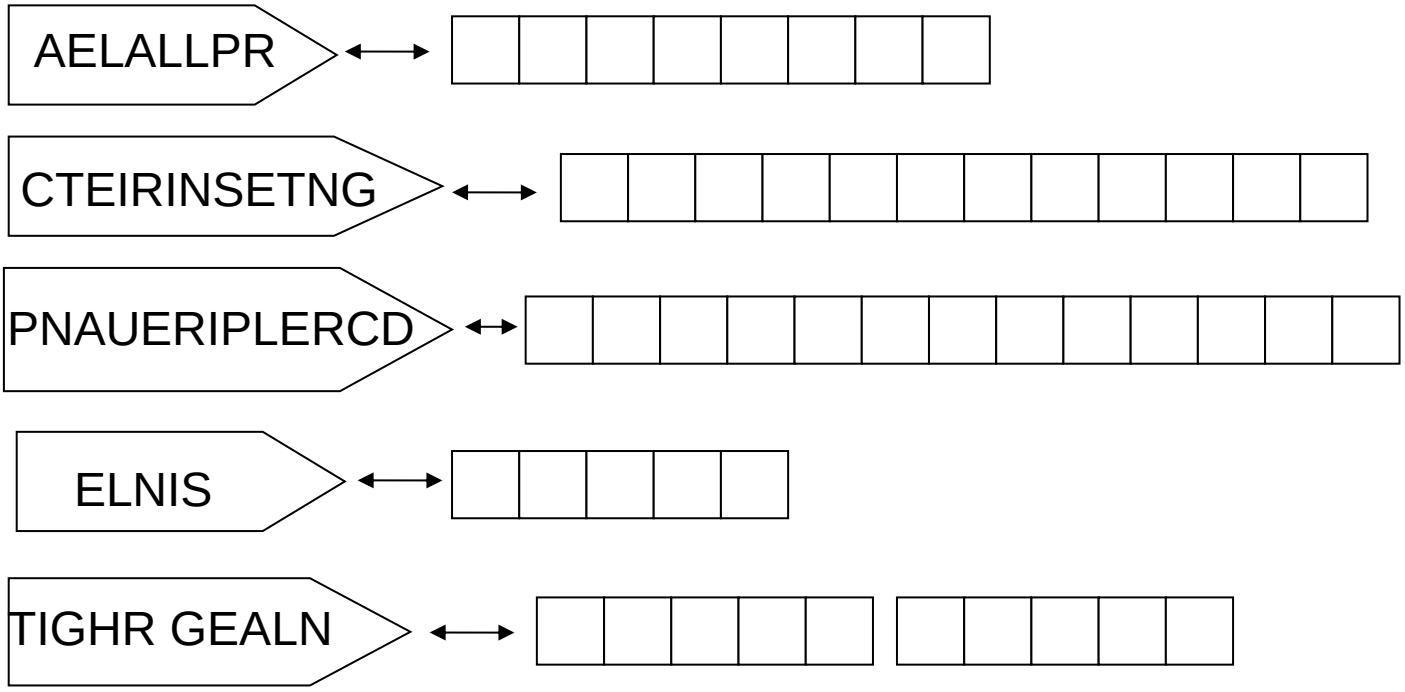
Time: 5 mins.
Oras: 5 minuto.

Keywords/terms are:
Pangunahing Salita:

Right Angle, Parallel line, Intersecting line, and Perpendicular line.

Activity 3: GEOMBLE WORDS!

Directions: Unscramble these five Jumbles, one letter to each square, to form five ordinary words**.**
Panuto: *Ayusin ang apat na Jumbles na ito, isang titik sa bawat kuwadrado, upang makabuo ng apat na karaniwang salita.*



Processing Questions:

1. What strategies did you use to decode the geometric concepts in the Geomble words?
   Anong mga pamamaraan ang ginamit mo upang matukoy ang mga konseptong geometric sa Geomble Words?
2. Which geometric concepts were the most challenging to understand? Why?
   Aling mga konseptong geometric ang pinakamahirap unawain? Bakit?
3. How do these geometric concepts relate to managing shapes and making decisions related to geometry?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometry?
4. Can you provide real-life examples or situations where you might encounter these geometric concepts?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

Time: 25 mins.
Oras: 25 minuto*.*

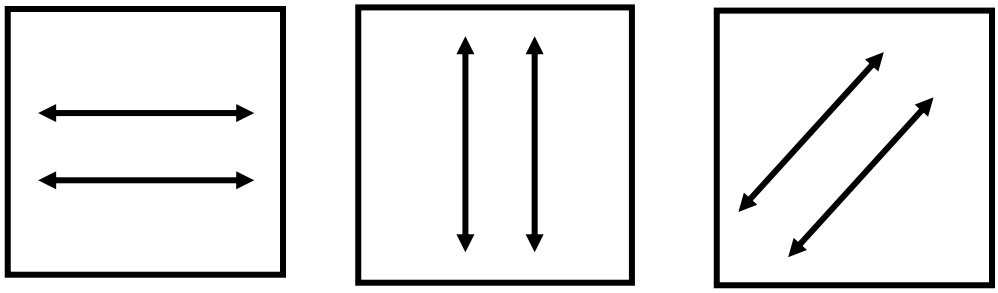
Component 4A

Initial Concepts *(Panimulang Konsepto)*

In the world of mathematics, the study of parallel, intersecting and perpendicular lines are important. Let's delve into these key terms that will serve as your guide in studying this lesson.
Sa mundo ng matematika ang pag aaral ng mga parallel, intersecting, at perpendicular lines ay mahalaga. Pag-aralan natin ang mahahalagang salitang ito na magiging gabay ninyo sa pag-aaral ng araling ito.

What is a Parallel line?

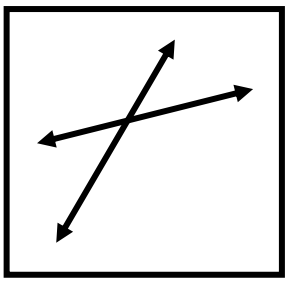
Parallel lines – These are lines that will never intersect no matter how far we extend them. Lines that will never meet. They can be drawn horizontally, vertically, or diagonally without ever meeting.
Ito ay mga linya na hindi kailanman magtatagpo gaano man kalayo ang pagpapalawak natin sa mga ito. Iginuguhit ito ng Pahiga, Patayo at Pahilis.



What is an Intersecting Line?

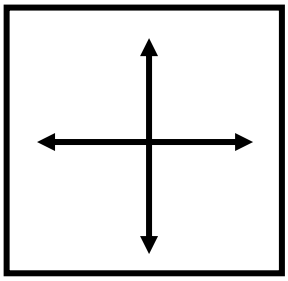
These are lines that intersect at a common point but do not form a right angle or 90 degrees.

Mga linya na nagsasalubong sa isang common point ngunit hindi ito nakabubuo ng isang right angle of 90 degrees.



What is a Perpendicular Line?

These are lines that intersect at a common point and form a right angle.
Ito'y mga linya na nagtatagpo sa isang common point at nakabubuo ng isang right angle

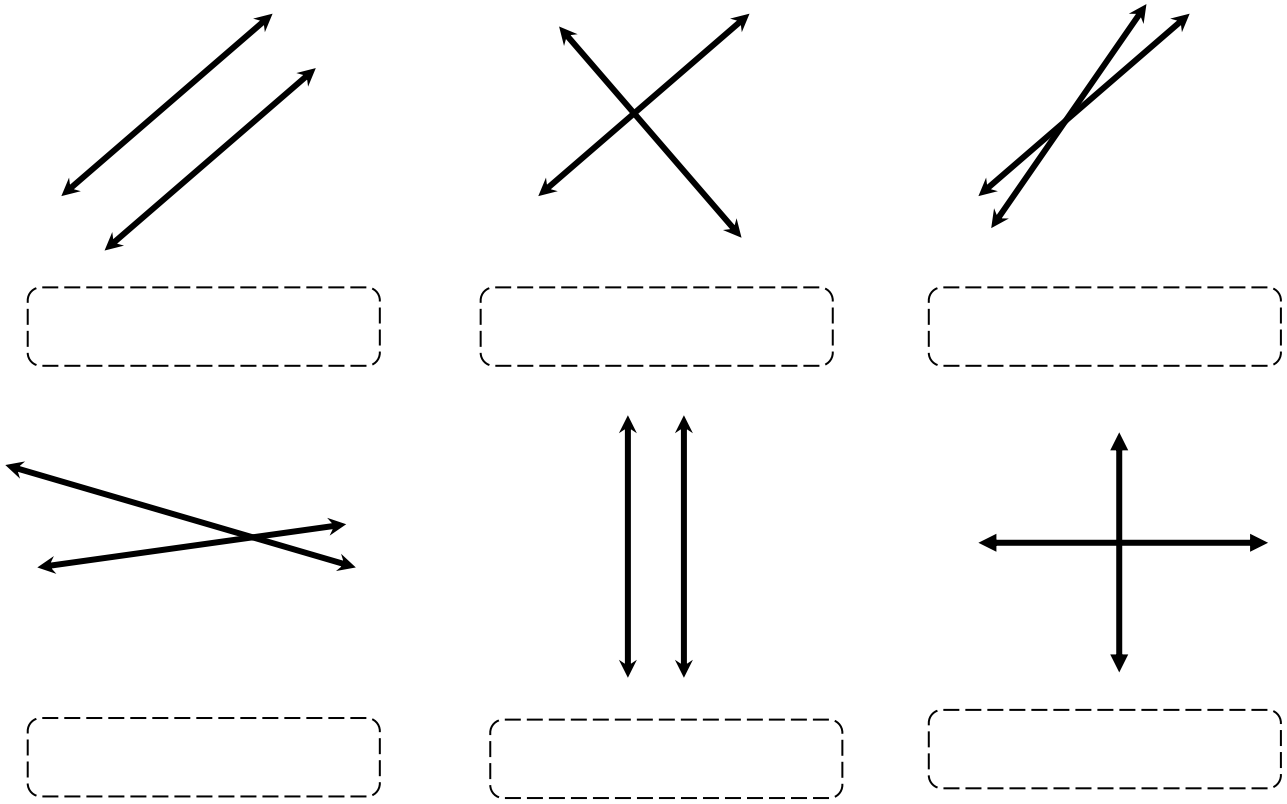


In this lesson, students are expected to recognize and draw parallel, intersecting, and perpendicular lines. *Sa araling ito inaasahang makikilala at maiguguhit ng mga mag-aaral ang mga parallel, intersecting and perpendicular line.*

Component 4B

Activity 4: Figure Recognition Challenge:

Instructions: Identify whether the given pair of lines are parallel lines, intersecting lines or perpendicular lines.
Mga Tagubilin: Kilalanin kung ang binigay na magkaparehong mga linya ay mga paralllel na linya, nagtatagpong mga linya, o perpendikular na mga linya.

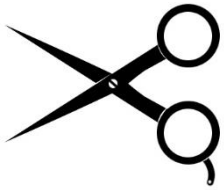
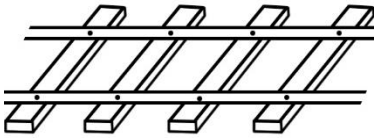


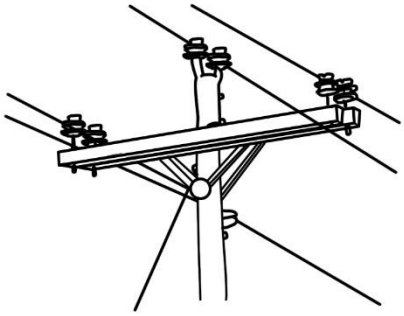
Answer 4B:

Parallel lines, Intersecting lines, Intersecting lines, Intersecting lines, Parallel lines & Perpendicular lines

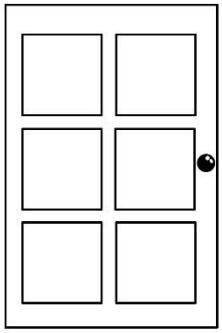
Component 4C

Directions: A. Match the picture in Column A to the kind of line it represents in Column B. Draw a line to match Column A to Column B.

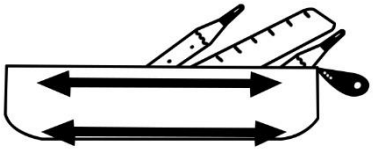
Column A	**Column B**
	**PARALLEL LINES**
	**INTERSECTING LINES**



PERPENDICULAR LINES

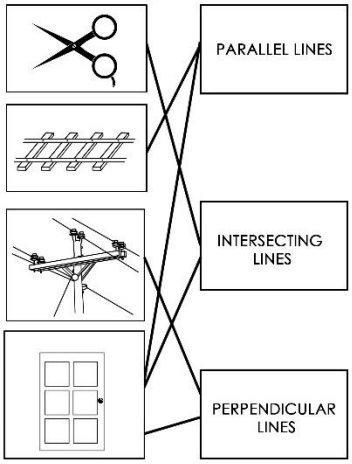


Instruction: B. Directions: Find at least 5 examples of objects in the classroom. Using the table below, draw the object and identify whether it shows parallel, perpendicular, or intersecting lines. An example is given as your guide.

Object	Kind of Line
	Parallel lines

Answers:

4C. A



4C. B

Answers may vary depending on the learners' Interpretation or drawing.

Component 5: Lesson Conclusion (Lesson Conclusion – Reflection/Metacognition on Student Goals)
Bahagi 5: Pagtatapos ng Aralin (Pagtatapos ng Aralin – Pagmumuni-muni/Tunay na Pag-iisip Tungkol sa Mga Layunin ng Mag-aaral)
Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
Ang guro ay magpapamalas ng pagmumuni-muni at pag-uusap ng mga mag-aaral, na tumutukoy sa mga sumusunod na tanong:

- What were the key mathematical concepts addressed in this lesson?
  Ano ang mga pangunahing konsepto sa matematika na tinalakay sa araling ito?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
  Paano mo ie-rate ang iyong pag-unawa sa materyal na tinatalakay sa araling ito bilang mataas, katamtaman, o mababa?
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- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
  Ano ang iyong maipapaliwanag bilang pangunahing hadlang, kung meron man, sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na tinatalakay sa araling ito?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?
  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

Mathematics Grade 3 Lesson Plan 16

Congruent Line Segments

Key Idea

Visualizes, identifies, and draws congruent line segments
(Nakikita, nakikilala, at gumuhit ng magkaparehong mga segment ng linya)

Lesson Component 1: (Lesson Short Review)
Bahagi ng Aralin 1: (Maikling Balik Tanaw)

Time: 7 mins.
Oras: 7 minuto.

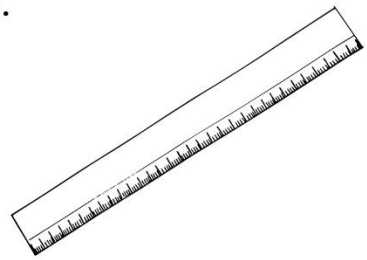
Lines Are Everywhere
Directions: Identify whether the given image shows intersecting, parallel and perpendicular lines
(**Panuto**: Tukuyin kung ang ibinigay na imahe ay nagpapakita ng mga intersecting, parallel at perpendicular na mga linya)

1. 

_____

2. 

_____

3. 

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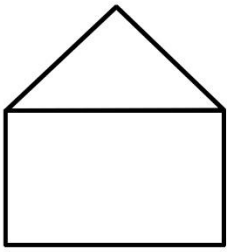
4. 

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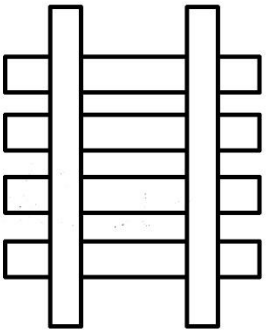
5. 

_____

Answers:

1. *Parallel 2. Intersecting 3. Parallel 4. Perpendicular 5. Perpendicular*

Guide Questions: ***(Gabay na tanong)***

1. How were you able to determine the classification of the given images?
   Paano mo natukoy ang klasipikasyon ng mga ibinigay na larawan?

2. Look at your area, give other examples of *Parallel, Intersecting and Perpendicular*
   Tingnan ang iyong lugar, magbigay ng isa pang halimbawa ng Parallel, Intersecting at Perpendicular

Component 2: (Lesson Purpose/Intention)
Bahagi 2: (Layunin ng Aralin)

Time: 3 mins.
Oras: 3 minuto.

Teacher states: To understand the concept of congruence, I want you to observe yourself and look how you are beautifully created, there are parts of our bodies that are exactly the same as the others. Your feet, your hands, eyes and others. You are uniquely created and that is Mathematics. Congruence focuses on equally the same objects. Our journey on this concept helps us to appreciate our lives through Congruence.

- *pang maunawaan ang konsepto ng congruence, gusto kong obserbahan mo ang iyong sarili at tingnan kung paano maganda ang pagkakalikha mo, may mga bahagi ng ating katawan na eksaktong kapareho ng ang iba. Ang iyong mga paa, iyong kamay, mata at iba pa. Ikaw ay natatanging nilikha at iyon ay Mathematics. Ang congruence ay nakatuon sa pantay na mga bagay. Ang aming paglalakbay dito tinutulungan tayo ng konsepto na pahalagahan ang ating buhay sa pamamagitan ng Congruence.*

Component 3: (Lesson Language Practice)
Bahagi 3: (Pagsasanay sa Wika ng Aralin)

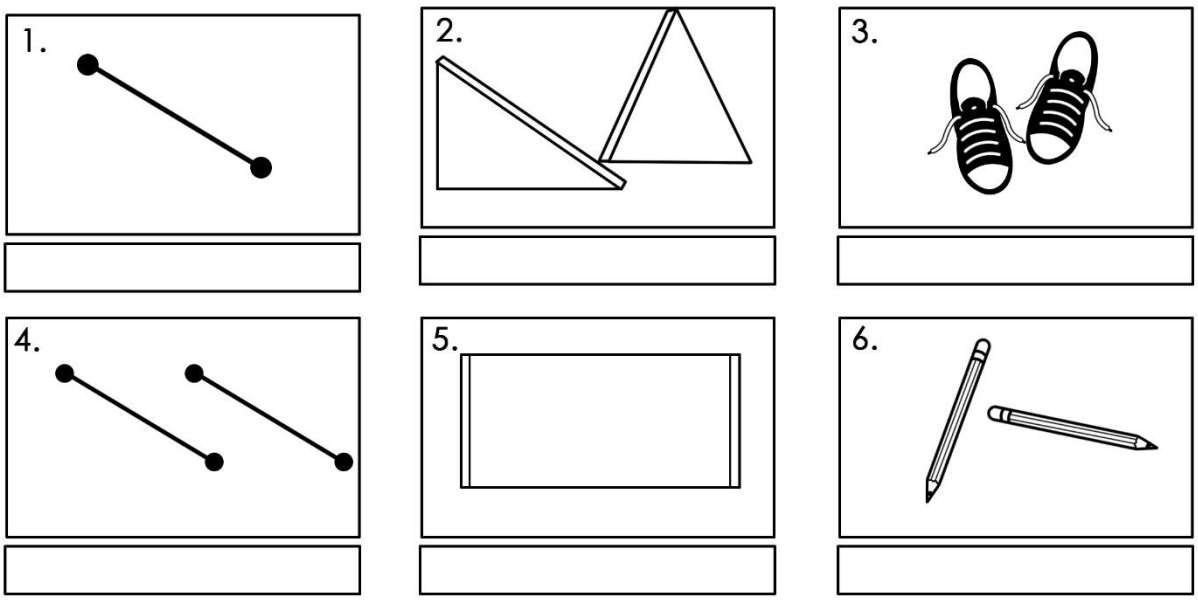
Time: 5 mins.
Oras: 5 minuto.

Keywords/terms are:
Pangunahing Salita:

Equal
Line Segment
Congruence / Congruent / Congruency

Activity 3: Compare and Decide

Directions: Identify whether the picture shows congruence. Write ***Congruent* if it shows congruence, then ***Not Congruent*** if Not.**
Panuto: *Tukuyin kung ang larawan ay nagpapakita ng pagkakatugma. Isulat ang Congruent kung ito ay nagpapakita ng congruent, pagkatapos ay Not Congruent kung Hindi.*



Answers:

1. Not Congruent 2.Not Congruent 3. Congruent 4. Congruent 5. Congruent 6. Congruent

Processing Questions:

1. Which pictures help you understand the concept?
   Aling mga larawan ang makakatulong sa iyo na maunawaan ang konsepto?
2. In your own words, how will you define Congruence?
   Sa iyong sariling mga salita, paano mo tutukuyin ang Congruence?
3. Can you provide real-life examples or situations where you might encounter the mathematical concept?
   Paano nauugnay ang mga konseptong geometric na ito sa pag-manage ng mga hugis at paggawa ng mga desisyong may kaugnayan sa geometriya?

Component 4*:* (Lesson Activity)
Bahagi 4: (Gawain sa Aralin)

Time: 25 mins.
Oras: 25 minuto*.*

Component 4A

Initial Concepts *(Panimulang Konsepto)*

Congruence, while often introduced in the context of geometry and mathematics, has numerous applications in real-life scenarios. It is everywhere and makes the world beautiful. Let's delve into this key term that will serve as your guide in studying this lesson.
Ang congruence, bagama't madalas na ipinakilala sa konteksto ng geometry at matematika, ay may maraming aplikasyon sa totoong buhay na mga senaryo. Ito ay nasa lahat ng dako at ginagawang maganda ang mundo. Suriin natin ang mahalagang terminong ito na magsisilbing gabay mo sa pag-aaral ng araling ito.

Let us Experiment:

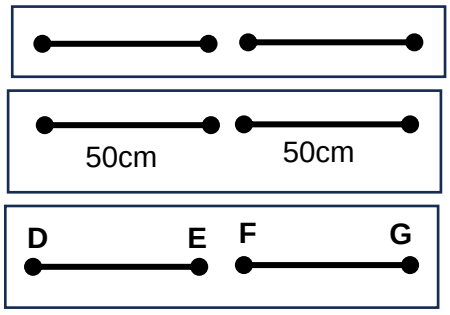
Materials: Drinking Straw, Scissors, Ruler, Glue and Paper

Instructions:

- Use (2) two pieces of straws
- Measure 50 cm each then cut (or various sizes to different learners)
- Put them in one place
- Repeat the process

Process:

- ✓ Get two cut-straws then paste it on paper
- ✓ Write the measurement of the straws and represent it as Line segment
- ✓ Name the segments as **D, E, F, G**
  What can you say about the two segments?



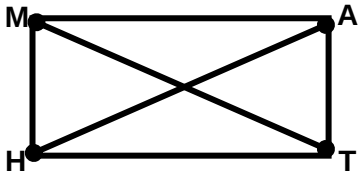
Then,

DE ≅ FG *It can be read as line segment DE **is congruent to** line segment FG*

Component 4B

Activity 4: Congruence in Action

Instructions: Write *Agree* if the line segments are congruent and *Disagree* if not. Use the figure below. *(Refer to the given figure below)*
Panuto: *Isulat ang Sang-ayon kung magkatugma ang mga segment ng linya at Di-Sang-ayon kung hindi. Gamitin ang figure sa ibaba.*



_____1. $\overline{MA} \cong \overline{HT}$ _____4. $\overline{MT} \cong \overline{AH}$

_____2. $\overline{MH} \cong \overline{AT}$ _____5. $\overline{TM} \cong \overline{MH}$

_____3. $\overline{MT} \cong \overline{TH}$

Answers:

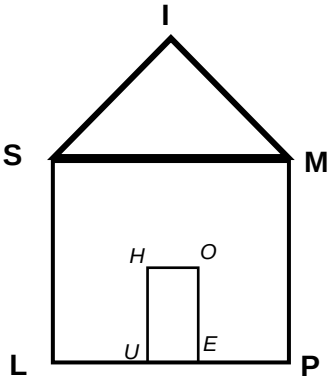
1. *Agree 2. Agree 3.Disagree 4. Agree 5.Disagree*

Component 4C

Instruction: Symbol Matters. Write " ≅ " if it shows congruence, otherwise, leave it blank.
Panuto: Mahalaga ang Simbolo. Isulat ang "≅" kung nagpapakita ito ng congruence, kung hindi, iwanan itong blangko

"My Simple House"

The roof is triangle, and its body is a square. Its door is a rectangle.



1. $\overline{SM}$ _____ $\overline{LP}$ 2. $\overline{IM}$ _____ $\overline{IS}$

3. $\overline{HO}$ _____ $\overline{UE}$ 4. $\overline{SL}$ _____ $\overline{LP}$

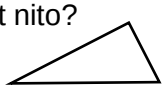
5. $\overline{HU}$ _____ $\overline{MP}$

Answers:

1. ≅ *2.* ≅ *3.* ≅ *4.* ≅ *5*

Instruction: B. Encirle the letter of the correct answer
Panuto: Bilugan ang letra ng tamang sagot.

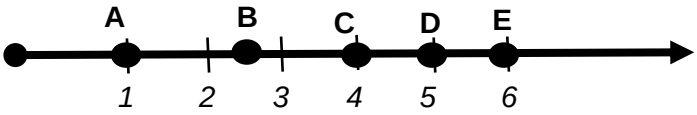
1. Pag-aralan at tignan ang larawan  , alin ang kasukat nito?

   a.  b.  c.  d. 

2. Alin sa mga simbolo ang nagpapakita ng congruence?

   a. ≠ b. < c. ≈ d. ≅

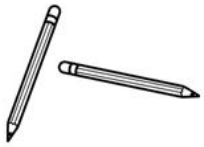
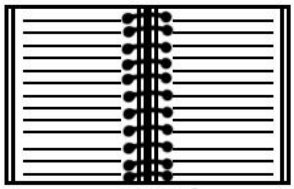
3. Tignan ang panukat sa ibaba, alamin kung anong line segment ang congruent sa *CD*

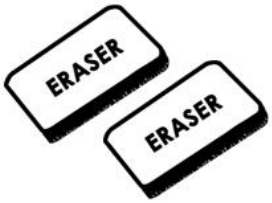


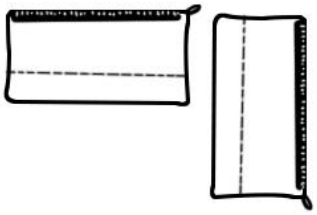
   a. ***line segment AB*** b. ***line segment DE***

   c. ***line segment BE*** d. ***line segment AC***

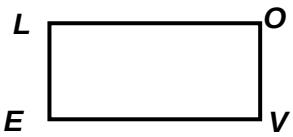
4. Ikaw ay pupunta sa tindahan malapit sa inyong bahay upang bumili ng gamit sa paaralan, anong larawan ang nagpapakita ng congruence?

a.  b. 

c. 

d. 

5. Tignan ang figure sa ibaba, kung ang sukat ng $\overline{LO}$ is 15cm, ano ang maaring sukat ng $\overline{VE}$?



   a. 7.5 cm b. 10 cm c. 15 cm d. 17.5 cm

Answers:

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

Component 5: Lesson Conclusion (Lesson Conclusion – Reflection/Metacognition on Student Goals)
Bahagi 5: Pagtatapos ng Aralin (Pagtatapos ng Aralin – Pagmumuni-muni/Tunay na Pag-iisip Tungkol sa Mga Layunin ng Mag-aaral)
Time: 5 mins.
Oras: 5 minuto.

The teacher facilitates student reflection and discussion, that addresses such questions as:
Ang guro ay magpapamalas ng pagmumuni-muni at pag-uusap ng mga mag-aaral, na tumutukoy sa mga sumusunod na tanong:

- What were the key mathematical concepts addressed in this lesson?
  Ano ang mga pangunahing konsepto sa matematika na tinalakay sa araling ito?
- Would you rate your understanding of the material covered in this lesson as high, moderate, or low?
  Paano mo ie-rate ang iyong pag-unawa sa materyal na tinatalakay sa araling ito bilang mataas, katamtaman, o mababa?
- Has the lesson helped you gain further insight into aspects of the material covered that represent strengths or weaknesses?
  Nakatulong ba ang aralin sa iyo upang mas maunawaan ang mga aspeto ng materyal na tinatalakay na nagpapakita ng lakas o kahinaan?
- What would you describe as the main barriers, if any, to your ongoing progress and achievement in relation to the topic area addressed in this lesson?
  Ano ang iyong maipapaliwanag bilang pangunahing hadlang, kung meron man, sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na tinatalakay sa araling ito?
- What do you think would best assist your ongoing progress and achievement in relation to the topic area?
  Ano ang iyong iniisip na pinakamagiging tulong sa iyong patuloy na pag-unlad at pagtatamo ng tagumpay kaugnay sa paksa na ito?

For inquiries or feedback, please write or call:

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