4

Lesson Exemplar for Mathematics

Quarter 4
Lesson
7

Lesson Exemplar for Mathematics Grade 4
Quarter 4: Lesson 7 (Week 7)
SY 2024-2025

Development Team

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Validator:
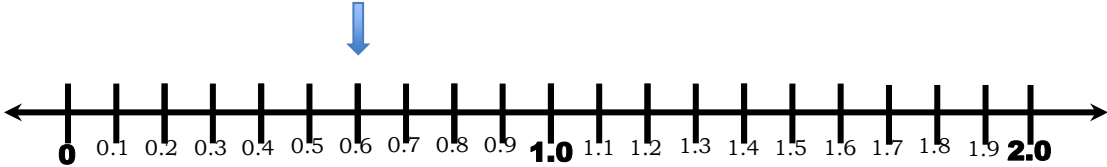- Aurora B. Gonzales, Ph.D. (Philippine Normal University – Manila)

Management Team

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SiMERR National Research Centre

MATHEMATICS / QUARTER 4 / GRADE 4

I.	CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES
A. Content Standards	The learner should have knowledge in decimal numbers and their relationship to fractions.
B. Performance Standards	By the end of the lesson, the learners are able to: ● represent, compare, order, and round decimal numbers. (NA) ● convert decimal numbers to fractions and fractions (with denominators 10 or 100) to decimals. (NA)
C. Learning Competencies and Objectives	Plot decimal numbers with the tenth decimal part on the number line. 1. *Accurately draw number lines to represent decimal numbers with tenth part.* 2. *Correctly plot decimal numbers with tenth decimal part on a number line.* Compare and order decimal numbers with decimal parts to hundredths. 1. *Accurately compare decimals with one decimal place using models.* 2. *Compare decimals with two decimal places using models,Type equation here.* 3. *Compare decimals by considering the place value of the digits.*
D. Content	Decimal Numbers
E. Integration	Prudence

II.	LEARNING RESOURCES

K5 Learning. (2023). Fractions to decimals: 10/100/1000. *K5 Learning.* https://www.k5learning.com/free-math-worksheets/fifth-grade-5/fractions-decimals/mixed-numbers-to-decimals-10-100-1000

K5 Learning. (2024). Comparing decimals: Grade 4 decimals worksheet: *K5 Learning.* https://www.k5learning.com/worksheets/math/grade-4-compare-decimals-a.pdf

Nagwa. (2024). Lesson plan: Comparing decimals: Tenths and hundredths mathematics 4th grade. *Nagwa.* https://www.nagwa.com/en/plans/714105705230/

Wargo, E. (2024). Decimal numbers on a number line. *Elephango.* https://www.elephango.com/index.cfm/pg/k12learning/lcid/12534/Decimal_Numbers_on_a_Number_Line

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS

A. Activating Prior Knowledge	**DAY 1-2**
	1. Short Review
	    Activity 1: From Fractions to Decimals
	    Match each fraction in Column A with its equivalent decimal in Column B.
	
	          Column A Column B
	
	        1. $\frac{5}{10}$ A. 0.05
	
	        2. $\frac{5}{100}$ B. 0.2
	
	        3. $\frac{2}{10}$ C. 0.02
	
	        4. $\frac{2}{100}$ D. 0.01
	
	        5. $\frac{1}{100}$ E. 0.5
	
	2. Feedback (Optional)
		Answers:
		1. E
		2. A
		3. B
		4. C
		5. D
		
		Note: 6 to 10 is in Learners Worksheet.

B. Establishing Lesson Purpose	**1. Lesson Purpose**
	    Move the arrow and choose a number where to place it. Then ask a learner from the class to name the decimal number.
	
	2. Unlocking Content Vocabulary
	    Number line is a visual representation of numbers on a straight line. The numbers on a number line are placed sequentially at equal distances along a horizontal line. It can be extended infinitely in both directions.
		Make an improvised material that can be used as a number line. It could be made of thick cardboard. Construct the arrow on top such that you can move it forward or backward.
		
		Use this material in establishing the lesson purpose.

|		

C. Developing and Deepening Understanding	**DAY 1-2**
	SUB-TOPIC 1: Plot decimal numbers with tenth decimal part on the number line
	1. Explicitation
	    1. Do this after the learners have drawn or constructed their own number line.
	    2. Ask the learner to identify a number between 0 and 1 on their constructed number line. Answers may vary.
	    3. Since their number lines have decimal numbers between 0 and 1 only, challenge them how to locate the following decimal numbers on a number line.
	               a. 1.7 b. 2.5
	    4. Observe learners' response, if none can get the right answer, the worked examples will help them.
	
	2. Worked Example
	Plot the following decimals on a number line.
	    a. 1.8 b. 1.3 c. 2.2 d. 2.4 e. 3.0
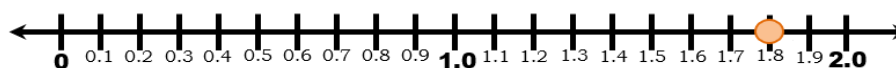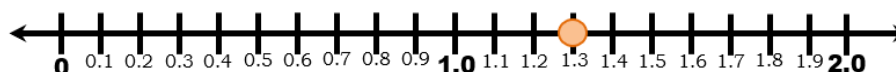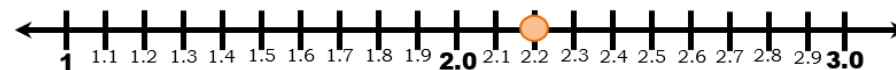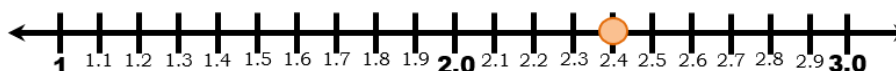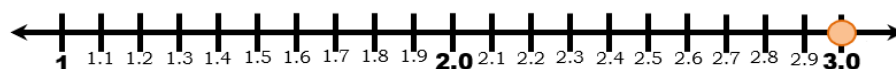	
	a) 1.8
	b) 1.3
	c) 2.2
	d) 2.4
	e) 3.0
		Guide the learners in creating or drawing their own number line. Use the guide below:
		
		Ask the learners to draw a number line on a piece of paper as shown on the example below. Following these steps:
		
		1. Draw a horizontal line.
		2. Mark two numbers on the number line.
		    Example 0 and 1
		
		3. Divide the distance between 0 and 1 into ten equal parts. (Here you can make connection between fraction and decimal.)
		
		This is $\frac{1}{10}$ and 0.1 in decimal form.
		
		4. Name the green marks using decimal numbers as shown on the number line.
		
		Note: the number line may also start with other number not necessarily zero. It will depend on the given problem.

3. Lesson Activity
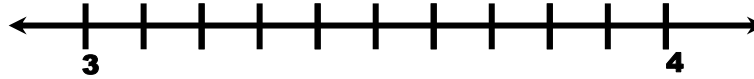
Activity 2: Locate Me!

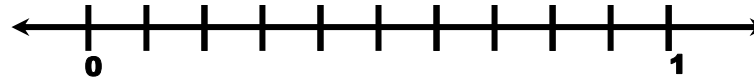A. Using the number line, plot the given decimal in each number line.
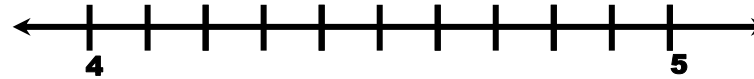
1) 4.2
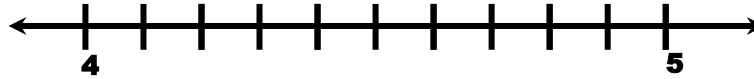
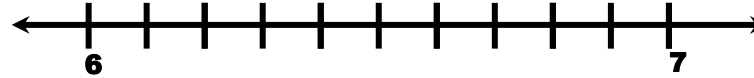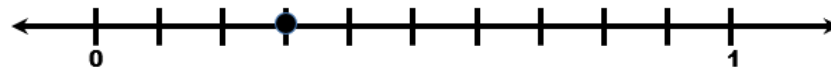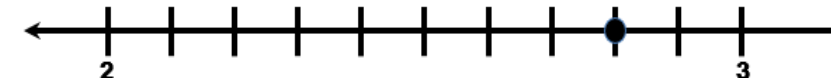2) 3.6

3) 0.8

4) 5.0

5) 6.6

Activity 3. Name My Point

B. Give the decimal illustrated in the number line.
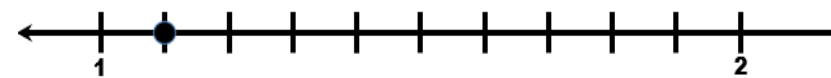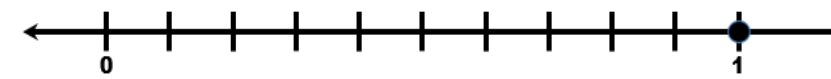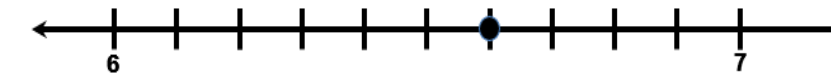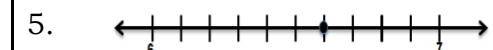
6.

7.

8.

9.

10.

Answer:

A.

1.

2.

3.

4.

5.
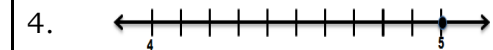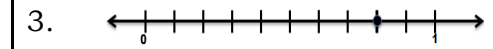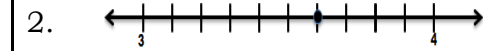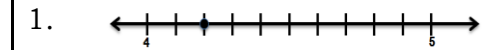
Note: 6 to 10 is in Learners Worksheet.

6) 8.5
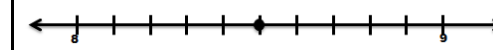
7) 11.1
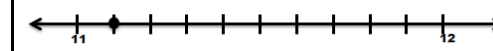
8) 0.4
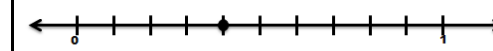
9) 12.6
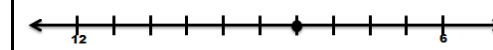
10) 18.9|
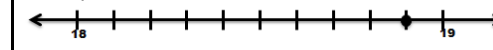
Answer:

B.

1) 0.3

2) 2.8

3) 1.1

4) 1.0 or 1

5) 6.6

Note: 6 to 10 is in Learners Worksheet.

SUB-TOPIC 2: Compare and order decimal numbers with decimal parts to hundredths

1. **Explicitation**

   Observe the given decimals on the number line.
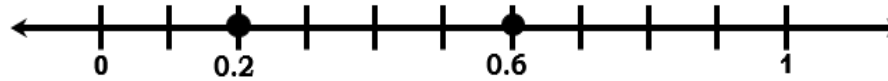
   Questions:
   1. How far is 0.6 from zero? *(Note: To illustrate this idea, use the improvised number line by moving the arrow.)*
   2. How far is 0.2 from zero?
   3. Which is farther from zero, 0.6 or 0.2?
   4. Which do you think is greater?

   Observe the given decimals on the number line.
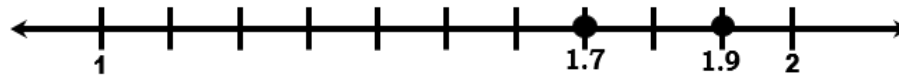
   Question:
   5. Which do you think has a smaller value, 1.9 or 1.7? Explain your answer.

   Plot 2.0 on the number line.
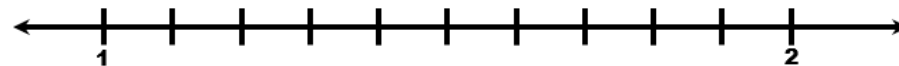
   Question:
   6. Is 2.0 the same with 2? Why?

   (Note: To illustrate the answer, use the improvised number line and show that both numbers will stop on the same location.)

2. **Worked Example**

   Example 1: Compare decimals 1.8 and 1.3 by comparing the distance of each from 0 on the number line. What should be the correct symbol (<, >) to complete the statement below.

   <div align="center">1.8 _____ 1.3   Answer: ></div>

Answer: (Explicitation)
1. 6 units away from zero
2. 2 units away from zero
3. 0.6 > 0.2
4. 0.6 is farther from zero as compared to 0.2.
5. 1.7 < 1.9, 1.7 is closer to zero than 1.9.
6. Yes

Example 2: Compare the decimals. Write <, > or =.

     0.8 _____1.0 Answer: <

     3.0 _____ 3 Answer: =

If decimals are not represented on a number line, a way to identify which is greater or lesser is on its place value.

Example 3: Compare

      1.8 _____ 2.3

   Answer: 1.8 < 2.3 since 2 ones is greater than 1 one.

Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
		1	.	8	

Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
		2	.	3	

Example 4: Compare

      .05 _____ .5

  Answer: 0.05 < 0.5 although their ones place value are the same, 5 hundredths is lesser than 5 tenths.

Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
			.	0	5

Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
			.	5	

Example 5: Arrange the decimals in increasing order.

     2.1, 2, 2.7, 2.3

    Answer: 2, 2.1, 2.3, 2.7

Use the number line to illustrate the answer. Tell the learners the idea of increasing order and decreasing order. Give more examples as needed.
- When decimals are arranged in increasing order, you start with the smallest decimal and end with the greatest decimal.
- When decimals are arranged in decreasing order, you start with the greatest decimal and end with the smallest decimal.

(Note: The place value of each decimal plays a vital role in arranging the decimals.)

	3. Lesson Activity
	Activity 4: Comparing Decimals
	Compare the decimals. Write <, >, or = on the blank.
	     1) 0.03 _____ 0.3
	     2) 1.2 _____ 1.20
	     3) 3. 02 _____ 3.2
	     4) 5.4 _____ 4.5
	     5) 9.1 _____ 3.5
	
	Activity 5: Ordering Decimals
	  A. Arrange the decimals in increasing order.
	     1) 3.08. 2.03, 0.08, 8.02, 3.02
	     2) 1.2, 0.2, 2.0, 0.02, 1.02
	     3) 4.5, 0.45, 4.05, 5.04, 5.4
	     4) 3.0, 0.3, 2.0, 0.02, 3.02
	     5) 6.7, 8.1, 0.99, 1.5, 0.9
	
	  B. Arrange the decimals in decreasing order.
	     1) 0.09, 0.9, 1.9, 10.9, 1.09
	     2) 6.3, 3.6, 3.06, 6.03, 0.63
	     3) 7.1, 1.7, 0.17, 1.07, 7. 01
	     4) 0.01, 1.0, 0.1, 10.0, 1.01
	     5) 5) 8.7, 4.5, 9.2, 0.19, 9.8
		Answer:
		Activity 4
		1) <
		2) =
		3) <
		4) >
		5) >
		Note: 6 to 10 is in Learners Worksheet.
		
		Activity 5
		A.
		1) 0.08, 2.03, 3.02, 3.08, 8.02
		2) 0.02, 0.2, 1.02, 1.2, 2.0
		3) .045, 4.05, 4.5, 5.04, 5.4
		4) 0.02, 0.3, 2.0, 3.0, 3.02
		5) 0.9, 0.99, 1.5, 6.7, 8.1
		
		B.
		1) 10.9, 1.9, 1.09, 0.99, 0.9
		2) 6.3, 6.03, 3.6, 3.06, 0.63
		3) 7.1, 7.01, 1.7, 1.07, 0.17
		4) 10.0, 1.01, 1.0, 0.1, 0.01
		5) 9.8, 9.2, 8.7, 4.5, 0.19

D. Making Generalizations	**DAY 4** **1. Learners' Takeaways** Use the diagram to show your understanding of the lessons. | Plotting decimals on a number line.	Naming decimals illustrated on a number line.
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Comparing decimals	Ordering decimals | (center: **Decimals**) **2. Reflection on Learning** Give instances when these lessons can be of help to you.	Ask the pupils to write the specific concept or procedure they learned from the discussion. Then ask a learner to share his/her answer.

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION	NOTES TO TEACHERS
A. Evaluating Learning	**Answer:**

DAY 4

1. Formative Assessment

A. Match the decimals in Column A with its equivalent representation in the number line in Column B. Write the letter of the correct answer.

Column A   Column B

1) 0.7

a.

2) 1.7

b.

3) 7.1

c.

4) 7.7

d.

5) 1.0

e.

f.

B. Identify if the given decimals are correctly compared. Write Yes if it gives a true statement and write No if it makes a false statement.
1) 9.1 > 9.01
2) 0.3 > 0.33
3) 6.1 > 6.01
4) 3.8 > 8.3
5) 0.02 = 0.2

C. Arrange the decimals in increasing order.
1) 3.4, 3.0, 3.1, 3.2, 3.5
2) 0.08, 8.0, 8.8, 0.8, 8.08
3) 5.3, 3.5, 0.35, 3.05, 0.53

D. Arrange the decimals in decreasing order.
4) 0.01, 1.0, 0.1, 10.0, 0.11
5) 7.3, 7.7, 7.2, 7.1, 7.0

Answer:

A.
1. d
2. e
3. c
4. f
5. a

B.
1) Yes
2) No
3) Yes
4) No
5) No

C.
1) 3.0, 3.1, 3.2, 3.4, 3.5
2) 0.08, 0.8, 8.0, 8.08, 8.8
3) 0.35, 0.53, 3.05, 3.5, 5.3

D.
4) 10.0, 1.0, 0.11, 0.1, 0.01
5) 7.7, 7.3, 7.2, 7.1, 7.0

Values Integration for Homework:
Ask the learners:
1. If you are not familiar with the place you are going to, what will you do to find your destination?
2. What will be the effect when you are not careful or cautious in going to place that you are not familiar with?

2. Homework (Optional)

Activity 6: Path to School

Directions: Help Pedro find his way to school by shading the block of the correct statement.

START

[boy image]	0.07 > 0.70	The decimals are arranged as 0.3, 0.03, 3.0
0.07 < 0.70	[tree image]	1.04 > 1.4
The decimals are arranged as 0.03, 0.3, 3.0	[fence image]	The decimals are arranged as 5.0, 5.2, 5.1
1.04 < 1.4	[tree image]	3.7 < 2.9
The decimals are arranged as 5.2, 5.1, 5.0	6.02 < 2.6	6.2 < 6.02
3.7 > 2.9	8.01 < 8.11	SCHOOL
8.01 > 8.11	[fence image]	[school image]

This activity aims to discuss or share to the learners the importance of being prudent or having good judgment on things that may encounter.

START

[boy image]	0.07 > 0.70	The decimals are arranged as 0.3, 0.03, 3.0
0.07 < 0.70	[tree image]	1.04 > 1.4
The decimals are arranged as 0.03, 0.3, 3.0	[fence image]	The decimals are arranged as 5.0, 5.2, 5.1
1.04 < 1.4	[tree image]	3.7 < 2.9
The decimals are arranged as 5.2, 5.1, 5.0	6.02 < 2.6	6.2 < 6.02
3.7 > 2.9	8.01 < 8.11	SCHOOL
8.01 > 8.11	[fence image]	[school image]

B. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	The teacher may take note of some observations related to the effective practices and problems encountered after utilizing the different strategies, materials used, learner engagement, and other related stuff.
	strategies explored			
	materials used			
	learner engagement/ interaction			Teachers may also suggest ways to improve the different activities explored/lesson exemplar.
	others			

C. Teacher's Reflection	*Reflection guide or prompt can be on:*
	• <u>*principles behind the teaching*</u>
	   What principles and beliefs informed my lesson?
	   Why did I teach the lesson the way I did?
	
	• <u>*students*</u>
	   What roles did my students play in my lesson?
	   What did my students learn? How did they learn?
	
	• <u>*ways forward*</u>
	   What could I have done differently?
	   What can I explore in the next lesson?
				Teacher's reflection in every lesson conducted/facilitated is essential and necessary to improve practice. You may also consider this as an input for the LAC/Collab sessions.