

MATHEMATICS

Quarter 2 - Module 4

Estimate Length using Meters or Centimeters, and Distance using Meters, and Solve Problems Involving Length and Distance



MATHEMATICS - Grade 2

Quarter 2 - Module 4 Estimate Length using Meters or Centimeters, and Distance using Meters, and Solve Problems Involving Length and Distance

Self-Learning Module (SLM)

MATATAG Curriculum

First Edition, 2025

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Introductory Message

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

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

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

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

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

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

Thank you.

For the learner

Welcome to the Mathematics - Grade 2 Self-Learning Module (SLM) on Estimate Length using Meters or Centimeters, and Distance using Meters, and Solve Problems Involving Length and Distance!

In this learning resource, you will have the opportunity to enjoy and successfully achieve relevant competencies at your own pace.

This module offers fun and meaningful opportunities for both guided and independent learning. You will engage with the material and become an active participant in your learning journey.

This module has the following parts and corresponding icons:



What I Need to Know

This gives you an idea of the skills or competencies you are expected to learn in the module.



What I Know

This part includes an activity that aims to check what you already know about the lesson to take. If you get all the answers correctly, you may decide to skip this part.



What's In

This is a brief drill or review to help you link the current lesson with the previous one.



What's New

In this portion, the new lesson is introduced to you in various ways such as through a story, a song, a poem, a problem opener, an activity or a situation.



What is It

This section provides a brief discussion of the lesson. This aims to help you discover and understand new concepts and skills.



What's More

This comprises activities for independent practice to concretize your understanding and skills about the topic. You may check the answers to the exercises using the Answer Key at the end of the module.

**What I Have Learned**

This includes questions or blank sentence/ paragraph to be filled in to process what you learned from the lesson.

**What I Can Do**

This section provides an activity which will help you transfer your new knowledge or skill into real life situations or events.

**Assessment**

This is a task which aims to evaluate your level of mastery in achieving the learning competency.

**Additional Activities**

In this portion, another activity is given to you to enrich your knowledge or skill of the lesson learned. It also ensures retention of learned concepts.

Answer Key

This contains answers to all activities in the module.

At the end of this module, you will also find:

References

This is a list of all sources used in developing this module.

The following are some reminders in using this module:

1. Use the module with care. Avoid unnecessary mark/s on any part of the module. Use a separate sheet of paper in answering the exercises.
2. Answer *What I Know* before moving on to the other activities included in the module.
3. Carefully read the instructions before doing each task.
4. Observe honesty and integrity in doing the tasks and in checking your answers.
5. Finish the task at hand before proceeding to the next.
6. Return this module to your teacher/facilitator once you are through with it.

If you encounter any difficulty in doing the tasks in this module, consult your teacher or facilitator. Always bear in mind that you are not alone. We hope that through this material, you will experience meaningful learning and gain a deep understanding of the relevant competencies.

For the facilitator

Welcome to the (Mathematics Grade 2) Self-Learning Module on Estimate Length using Meters or Centimeters, and Distance using Meters, and Solve Problems Involving Length and Distance.

The Curriculum Implementation Division (CID) through the Learning Resource Management Section (LRMS) launched this module in cooperation with the Division's Teacher Developers, Learning Resource Evaluators (LREs), Information and Technology Officer, and subject matter experts in Mathematics and English. This has been especially developed, quality-assured, and validated to enable you to help the learners overcome their educational obstacles—personal, social, and economic—while meeting the standards outlined in the MATATAG Curriculum.

This learning resource hopes to engage the learners in guided and independent learning activities. It further aims to help them acquire the needed 21st century skills while taking into consideration their needs and circumstances.

As a facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of their progress while allowing them to manage their learning. In addition, you are enjoined to encourage and assist the learners as they do the tasks contained in the module.

MATHEMATICS

Quarter 2 - Module 4

Estimate Length using Meters or
Centimeters, and Distance using
Meters, and Solve Problems Involving
Length and Distance

Lesson 1 - Estimating Length using Meters or Centimeters, and Distance using Meters



What I Need to Know

This module was designed and written to help you master the Measurement and Geometry. The scope of this module can be used in many different learning situations. The language used was adjusted to the diverse vocabulary level of learners. The lessons were arranged chronologically according to the standard sequence of the course. The content of this module corresponds to the textbook you are using.

This module contains lesson on:

1. Estimating length using meters or centimeters, and distance using meters.
2. Solving problems involving length and distance.

By the end of this module, you are expected to:

1. Estimate length using meters or centimeters, and distance using meters.
2. Solve problems involving length and distance.



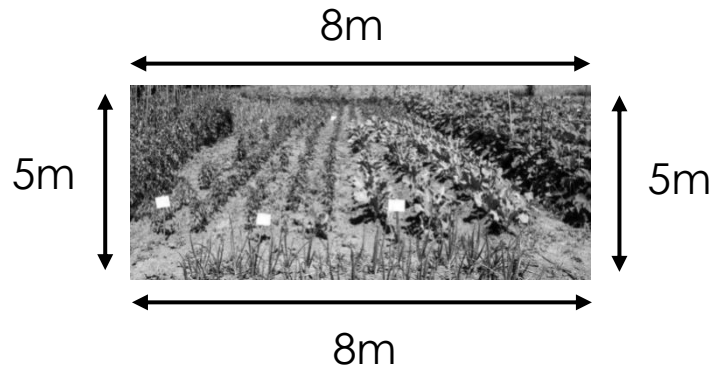
What I Know

Good luck, kid! Do what you can in answering the test.

Choose the letter of the correct answer.

1. Maria has 18 _____ length of her toothbrush.
a. millimeters c. meters
b. centimeters d. kilometers
2. Jovy will buy 6 _____ of cloth for her dress.
a. millimeters c. meters
b. centimeters d. kilometers
3. Rosa's hair clip has a length of 5 _____.
a. millimeters c. meters
b. centimeters d. kilometers
4. The newly built classroom has a length of 9 _____.
a. millimeters c. meters
b. centimeters d. kilometers
5. Maximo's height is 110 _____.
a. millimeters c. meters
b. centimeters d. kilometers

Directions: Read the problem carefully and answer the questions below.



Sally wants to build a fence around her rectangular garden. The garden is 8 meters long and 5 meters wide. How many meters of fencing does she need to buy?

6. What is being asked in the word problem?
 - a. How many meters of fencing does she need to buy?
 - b. How many centimeters of fencing does she need to buy?
 - c. How many kilometers of fencing does she need to buy?
 - d. How many millimeters of fencing does she need to buy?

7. What are given in the problem?
 - a. 5 meters long and 8 meters wide
 - b. 8 meters long and 5 meters wide
 - c. 9 meters long and 5 meters wide
 - d. 10 meters wide and 5 meters long

8. What mathematical operation should be used?

- a. addition
- b. Subtraction
- c. Multiplication
- d. Division

9. What is the number sentence?

- a. $10 + 5 + 10 + 5 = n$
- b. $8 + 4 + 8 + 4 = n$
- c. $8 + 5 + 8 + 5 = n$
- d. $9 + 5 + 9 + 5 = n$

10. What is the correct answer?

- a. 16
- b. 13
- c. 24
- d. 26



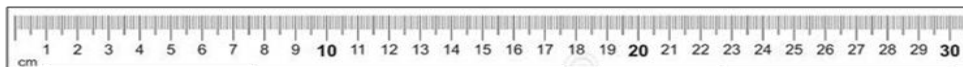
What's In

Directions: Interpret what is describe in each picture.

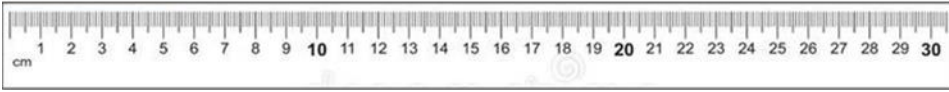
Measure each item using a ruler or meter stick.



1.



The ballpen is ___ centimeters long.



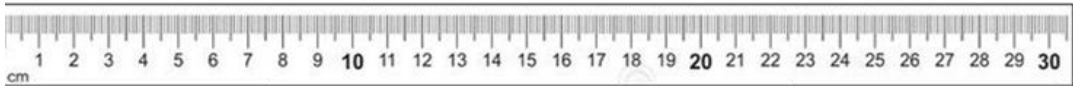
2.

The key is ___ centimeters long.



3.

The arrow is ___ meters long.

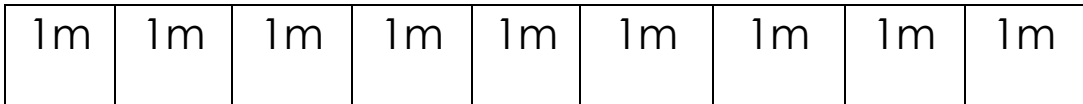


4.

The popsicle stick is ___ centimeters long.



5.



The rope is ___ meters long.



What's New

Children, let's learn how to estimate the length of an objects using approximation, and we will explore this in the story.

Marcus wants to measure the length of his pants but can't find anything to use for measuring. So, he says, "The length of my pants is 80 centimeters."

Directions: Answer the following questions.

1. What does Marcus want to measure?
2. Is he using any measuring tool?



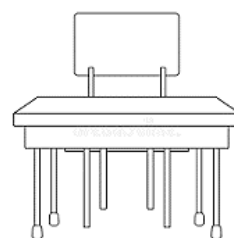
What is It

Study the pictures on the right:

1. A Standard Door:
Approximately 2 meters tall.



2. A Standard Classroom Desk:
Approximately 1 meter long.



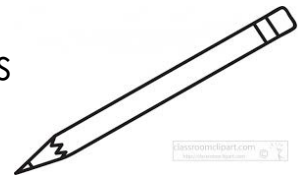
3. The rope used as a clothesline is 8 meters long.



4. The length of the spoon is 16 centimeters.



5. I bought a pencil that is 18 centimeters long.



To measure a short object using estimation, use centimeters. While, for measuring a long object, use meters.



What's More

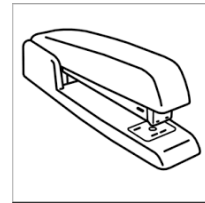
Good luck, kids! Do what you can in answering the test.

Directions: Choose the correct measurement on the following pictures below.

1. 10 _____ is the length of the flag pole.
a. millimeters
b. centimeters
c. meters
d. kilometers



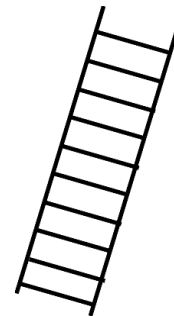
2. 8 _____ is the length of the stapler.
a. millimeters
b. centimeters
c. meters
d. kilometers



3. 16 _____ is the length of the ballpen.
a. millimeters
b. centimeters
c. meters
d. kilometers



4. 5 _____ is the length of the ladder.
a. millimeters
b. centimeters
c. meters
d. Kilometers



5. 8 _____ is the length of the electric post.

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



What I have learned

Instructions: Choose the correct unit of measurement in the box below.

meters centimeters kilometers

For estimating the length of a short object, use _____.
While, for estimating the length of a long object, use _____.



What I can do

At this time, here are the tasks for you to work on. Read and choose the letter of the correct. God bless learners!

1. The straw used for calamansi juice is 20 _____ long.
What is the appropriate unit of measurement should be used?
 - a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers

2. Michaella's hairband is 30 _____ long. What is the appropriate unit of measurement should be used?
- a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers
3. Joelyn bought 4 _____ of cloth to make a dress for her sister. What is the appropriate unit of measurement should be used?
- a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers
4. Mario jumps 30 _____ high. What is the appropriate unit of measurement should be used?
- a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers
5. The mango tree is 10 _____ tall. What is the appropriate unit of measurement should be used?
- a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers



Assessment

In this activity, you are going to choose the appropriate unit of measurement.

1. The bamboo fence is 20 _____ long.
 - a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers

2. Anne's ball pen is 30 _____ long.
 - a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers

3. Rachel walks 400 _____ from their house to school.
 - a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers

4. Uncle John uses a walking stick that is 1 _____ long.
 - a. millimeters
 - b. centimeters
 - c. meter
 - d. kilometers

5. The pencil is 20 _____ long.
 - a. millimeters
 - b. centimeters
 - c. meters
 - d. kilometers



Additional Activities

Directions: Write on your answer sheet which one has the longer measurement inside the box.

1.

4 meters

15 centimeters

2.

30 centimeters

2 meters

3.

10 meters

100 centimeters

4.

150 centimeters

1 meter

5.

250 centimeters

2 meters

Lesson 2 - Solving Problems Involving Length and Distance



What's In

Directions: What standard units should be used for the items listed below?

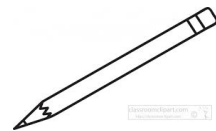
1. What is the appropriate unit of measure in measuring a crayon?

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



2. What is the appropriate unit of measure in measuring a pencil?

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



3. What is the appropriate unit of measure in measuring a flagpole?

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



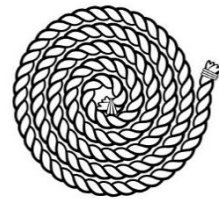
4. What is the appropriate unit of measure in measuring a spoon?

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



5. What is the appropriate unit of measure in measuring a rope?

- a. millimeters
- b. centimeters
- c. meters
- d. kilometers



What's New

Read the short story.

Rosa wants to help her mother in preparing decorations for her younger brother's birthday. She needs 25 meters of cloth for curtains. She also needs 15 meters for table cloth. How many meters of cloth does she need altogether?

Directions: Choose the letter of the correct answer.

1. Who needs meters of cloth for curtains and table?
 - a. Ana
 - b. Susana
 - c. Mona
 - d. Rosa

2. How many meters of cloth does Rosa needs for curtains?
 - a. 25 meters
 - b. 15 meters
 - c. 35 meters
 - d. 5 meters

3. How many meters of cloth does she needs for the table cloth?
 - a. 25 meters
 - b. 15 meters
 - c. 35 meters
 - d. 5 meters

4. What is asked in the problem?
 - a. Meters of cloth needed for curtains.
 - b. Meters of cloth needed for table.
 - c. Meters of cloth needed for chair.
 - d. Meters of cloth needed for curtains and table.

5. What is the answer to the problem?
 - a. 20 meters
 - b. 30 meters
 - c. 40 meters
 - d. 50 meters



What is It

Read the short story again.

Rosa wants to help her mother in preparing decorations for her younger brother's birthday. She needs 25 meters of cloth for curtains. She also needs 15 meters for table cloth. How many meters of cloth does she need altogether?

Review and analyze the word problem in order to solve it. Follow these steps based on the provided examples:

First Step: Identify the problem.

What is being asked in the word problem?

- (How many meters of cloth does Rosa needs altogether?)

Second Step: Gather information about the word problem.

What are the given numbers in the word problem?

- 25 meters of cloth for curtains
- 15 meters for table cloth

Third Step: Determine the mathematical operation to be used to solve the problem.

What mathematical operation should be used to find the answer?

- (Addition)

Fourth Step: Create an equation and verify the correct answer.

What is the number sentence and the correct answer?

$$25 + 15 = 40$$



What's More

In this activity, learners you are going to read the word problem carefully and answer the questions.

Mang Roman needs 30 meters of cloth to cover his living room set. Last month, he bought 15 meters of cloth. How many more meters of cloth does he needs to buy?

Directions: Choose the letter of the correct answer.

1. What is being asked in the word problem?
 - a. How many more meters of rope does he need to buy?
 - b. How many more meters of wire does he need to buy?
 - c. How many more meters of cloth does he need to buy?
 - d. How many more meters of string does he need to buy?

2. What mathematical operation should be used?
 - a. Addition
 - b. Subtraction
 - c. Multiplication
 - d. Division

3. What are given?
- a. Mang Roman's meter of cloth.
 - b. meters of cloth to cover the living room and 30 meters already bought
 - c. 20 meters of cloth to cover the living room and 30 meters already bought
 - d. 30 meters of cloth to cover the living room and 15 meters already bought
4. What is the number sentence?
- a. $35 + 10 = n$
 - b. $35 - 10 = n$
 - c. $30 + 15 = n$
 - d. $30 - 15 = n$
5. What is the correct answer?
- a. 20 meters
 - b. 30 meters
 - c. 45 meters
 - d. 15 meters



What I have learned

Now, let's check what you have learned.

Arrange the following steps in solving a problem correctly.
Choose your answer inside the table.

What is the number sentence?

What are given?

Give the final answer.

What is asked?

What operation to use?

Steps in solving word problems:

1. _____

2. _____

3. _____

4. _____

5. _____



What I can do

In this activity, learners you are going to read the word problem carefully and answer the questions.

The floor of the grade-two classroom was covered with a 4-meter floor mat last year. However, this did not cover the entire classroom which is 9 meters long. Therefore, Mr. Ponciano, the teacher, decided to add more floor mat. How many more meters of floor mat are needed to cover the entire classroom?

1. What is being asked in the word problem?
 - a. How many more meters of rope are needed to cover the entire classroom?
 - b. How many more meters of curtains are needed to cover the entire classroom?
 - c. How many more meters of floor mat are needed to cover the entire classroom?
 - d. How many more meters of cloth are needed to cover the entire classroom?

2. What are given?
 - a. 4 meters of floor mat bought last year and 9 meters long needed to cover the entire classroom
 - b. 9 meters of floor mat bought last year and 4 meters long needed to cover the entire classroom
 - c. 4 meters of floor mat bought last year and 5 meters long needed to cover the entire classroom
 - d. 5 meters of floor mat bought last year and 9 meters long needed to cover the entire classroom

3. What mathematical operation should be used?

- a. Addition
- b. Subtraction
- c. Multiplication
- d. Division

4. What is the number sentence?

- a. $9 + 4 = n$
- b. $9 - 4 = n$
- c. $4 - 9 = n$
- d. $4 + 9 = n$

5. What is the correct answer?

- a. 3
- b. 4
- c. 5
- d. 6



Assessment

Directions: Read the word problem carefully. Choose the letter of the correct answer.

My grandfather bought a rope for his animals. The rope for the goat is 15 meters long, while the rope needed for the carabao is 20 meters long. How many meters of rope are needed for two animals?

1. What is being asked in the word problem?
 - a. The total length of rope used for the goat.
 - b. The total length of rope used for the buffalo.
 - c. The total length of rope used for carabao.
 - d. The total length of rope for both animals.

2. What numbers are given?
 - a. 5 and 3
 - b. 5-meter rope, 3-meter rope
 - c. 15 meters in length for goat, 20 meters in length of rope for carabao
 - d. 35 meters

3. What is the word clue?
 - a. animals
 - b. length of rope
 - c. three times
 - d. rope and animals

4. What mathematical operation should be used?
- Addition
 - Subtraction
 - Multiplication
 - Division
5. What is the number sentence and the correct answer?
- $15 \times 20 = 300$
 - $20 - 15 = 5$
 - $15 + 20 = 35$
 - $35 - 20 = 15$



Additional Activities

Directions: Read the word problem carefully and answer the following questions below.

Mrs. Maria loves gardening. Her husband suggested adding a fence to the front of their yard to protect the plants. The front of their house is 10 meters long. The front yard is twice as long as their house. How many meters of cyclone wire does she need to buy to fence the front yard?

1. What is being asked in the word problem?
2. What mathematical operation should be used?
3. What is the number sentence?
4. What is the correct answer?

Answer Key

Lesson 1

What I Know

1. b	6. a
2. c	7. b
3. b	8. a
4. c	9. c
5. b	10. d

What's In

- 22 centimeters
- 5 centimeters
- 3 meters
- 14 centimeters
- 8 meters

What's New

- the length of his pants
- none

What's More

- c
- b
- b
- c
- c

What I Have Learned

- centimeter
- meter

What I Can Do

- b
- b
- c
- b
- c

Assessment

- c
- b
- c
- c
- b

Additional Activities

- 4 meters
- 2 meters
- 10 meters
- 150 centimeters
- 250 centimeters

Lesson 2

What's In

- b
- b
- c
- b
- c

What's New

- d
- a
- b
- d
- c

What's More

- c
- b
- b
- d
- d

What I Have Learned

- What is asked?
- What are given?
- What operation to use?
- What is the number sentence?
- Give the final answer.

What I Can Do

- c
- a
- b
- b
- c

Assessment

- d
- c
- b
- a
- c

Additional Activities

- meters of cyclone wire she need to buy to fence the front yard
- Multiplication or Addition
- $10 \times 2 = n$
- or
 $10 + 10 = n$
- $10 \times 2 = 20$
- or
 $10 + 10 = 20$

References

Macasaet, J. (2020). *Solving Problems involving Length and Distance*. Koronadal City: Department of Education.

Reponte, J. C. (2020). *Solving Problems involving Length and Distance*. Koronadal City: Department of Education.

DISCLAIMER

This Self-learning Module (SLM) in **MATHEMATICS 2 Quarter 2 Module 4** titled **“Estimate Length using Meters or Centimeters, and Distance using Meters, and Solve Problems Involving Length and Distance”** was developed by SDO Tacurong with the primary objective of preparing for and addressing the demands of the MATATAG Curriculum. Contents of this module were based on DepEd’s Learning Competencies anchored on the MATATAG Curriculum. This is a supplementary material to be used by all learners of Tacurong City in all public schools beginning SY 2024-2025. The process of LR development was observed in the production of this module. This is version **1.0**. We highly encourage feedback, comments, and recommendations.

For inquiries or feedback, please write or call:

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