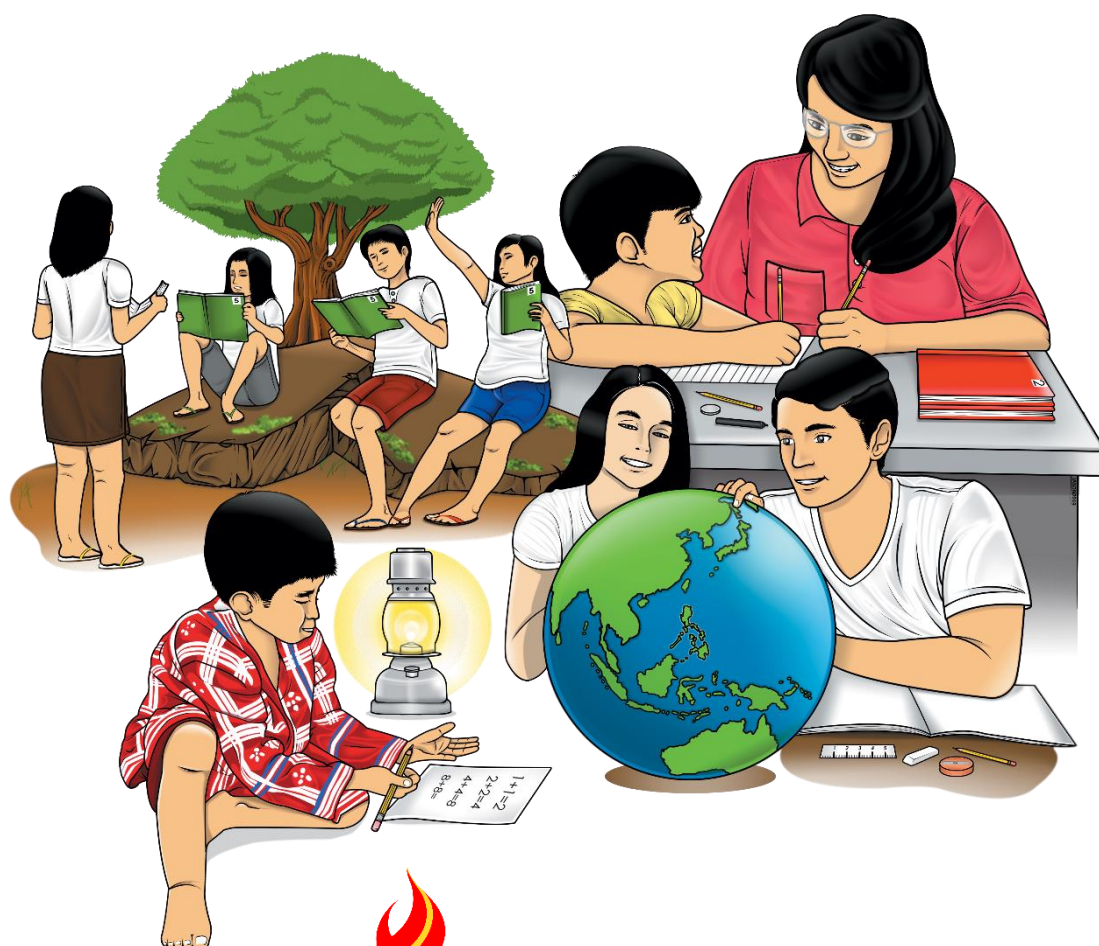


# Mathematics

## Quarter 4 – Module 66 (A): Visualizing, Representing, and Converting Common Units of Measure



**Mathematics– Grade 3**  
**Alternative Delivery Mode**  
**Quarter 1 – Module 1: Visualizing Whole Number**  
**First Edition, 2019**

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# Mathematics

## Quarter 4 – Module 66 (A): Visualizing, Representing and Converting Common Units of Measure

This instructional material was collaboratively developed and reviewed by educators from public and private schools, colleges, and or/universities. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of Education at [action@deped.gov.ph](mailto:action@deped.gov.ph).

**We value your feedback and recommendations.**

## Introductory Message

For the facilitator:

*(This gives an instruction to the facilitator to orient the learners and support the parents, elder sibling etc. of the learners on how to use the module. Furthermore, this also instructs the facilitator to remind the learners to use separate sheets in answering the pre-test, self-check exercises, and post-test.)*

For the learner:

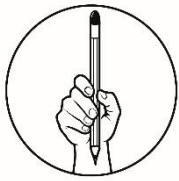
*(This communicates directly to the learners and hence, must be interactive. This contains instructions on how to use the module. The structure and the procedure of working through the module are explained here. This also gives an overview of the content of the module. If standard symbols are used to represent some parts of the module such as the objectives, input, practice task and the like they are defined and explained in this portion.)*



## *What I Need to Know*

We encounter Mathematics in our daily living. Mathematical skills play a very important role in everyone's lives. This module helps you to learn the basic skills of multiplying, adding, and subtracting, dividing and converting numbers.

1. This where you will learn how to convert common units of measure from larger to smaller unit and vice versa (meter and centimeters).
2. You will learn also to multiply and divide whole numbers by 100;
3. Knows how to get the fractional part of a numbers.
4. Be able to measure the length of an object accurately.



## *What I Know*(pre-test)

Choose the letter of the correct answer.

Find the product.

$$\begin{array}{r} 1. \quad 100 \\ \times \quad 5 \\ \hline \end{array}$$

- a. 50      b. 500      c. 5100      d. 5

$$\begin{array}{r} 2. \quad 100 \\ \times \quad 6 \\ \hline \end{array}$$

- a. 6100      b. 60      c. 600      d. 6

B. Find the quotient.

$$3. \quad 7/700$$

- a. 7      b. 100      c. 70      d. 140

$$4. \quad 100/1000$$

- a. 10      b. 100      c. 1000      d. 1

C. Find the fractional part.

$$5. \quad \frac{1}{2} \text{ of } 10$$

- a. 20      b. 15      c. 7      d. 5

# Lesson

Visualizes, and represents, and converts common units of measure from larger to smaller unit and vice versa; meter and centimeter

*(Introduction to the lesson)*

Lesson Proper/ Setting Up the Phase



[https://www.google.com/search?biw=1366&bih=576&tbm=isch&sa=1&ei=RJzsXc39CYj7wQPKuLWoBw&q=+boys+measures+the+table&oq=+boys+measures+the+table&gs\\_l=img.3...214483.215191..215929...0.0..1.160.1096.1j8.....0....1..gws-wiz-img.pLT70PauRrU&ved=0ahUKewjNr7ybuqXmAWhfXAKHUpcDXUQ4dUDCAc&uact=5](https://www.google.com/search?biw=1366&bih=576&tbm=isch&sa=1&ei=RJzsXc39CYj7wQPKuLWoBw&q=+boys+measures+the+table&oq=+boys+measures+the+table&gs_l=img.3...214483.215191..215929...0.0..1.160.1096.1j8.....0....1..gws-wiz-img.pLT70PauRrU&ved=0ahUKewjNr7ybuqXmAWhfXAKHUpcDXUQ4dUDCAc&uact=5)

Troy and Shaira measured the length of the teacher's table. Troy found it to be 1 meter long; while Shaira claimed that it is 100 cm long. Whose measurement is correct? Why?

Who measured the length of the teacher's table?

How long is the table according to Troy?

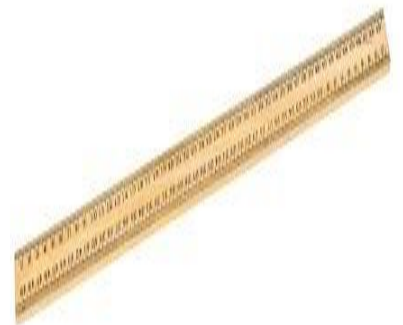
How long is the table according to Shaira?

Whose measurement do you think is correct



## *What's In*

*(Review)*



Measure the following using ruler, tap measure or meter stick. (Length of the notebook, pencil, paper, table etc.)

How would you know the measure of an object?

What unit of measure is shown in the ruler? Meter stick? Tape measure?

Is it necessary that one should be able to measure things correctly? Why?





*Notes to the Teacher*

*(Instruction to the teacher/facilitator)*



## *What's New*

*(Solving the Problem)*

### *Activity 1*

**Solution 1:** By using a meter stick or a large tape measure, locate and mark the section where 1 meter is located.

As you can see, 1 meter is equal to 100 centimetres as seen in the meter stick or tape measure.

$$1 \text{ meter} = 100 \text{ centimetre}$$

**Solution 2:** If meters are already given as the length of an object (ex. 3 meters) how can we get its length in centimetres?

Multiply 3 by 100

$$3 \times 100 = 300 \text{ cm}$$

How can we change 300 centimetres to meters?

Divide 300 by 100

$$300 / 100 = 3 \text{ meters}$$

**Solution 3:** How can we change meter in fractional part to centimetre?

**Example:** What is  $\frac{3}{4}$  of a meter?

$$1 \text{ meter} = 100 \text{ centimetres}$$

$$\frac{3}{4} \times 100 \text{ cm} = 300 \text{ cm} / 4 = 75 \text{ cm}.$$





## *What is It*

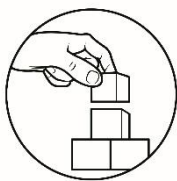
### *(Discussion of the Lesson)*

In **solution 1**, as you can see 1 meter is equivalent to 100 centimetres and vice versa.

In **solution 2**, to convert meter to centimetre, multiply the number of meters by 100.

To convert centimetre to meter, divide the number by 100.

To get the fractional part of a meter multiply the numerator to a centimetre over the denominator then divide.



## *What's More* (Drill, Practice Test)

### Activity 2

Answer the following exercises. First one is done for you.

Ex. 6 meter =  $6 \times 100 = 600$  centimeters

1. How many centimeters are there in 2 meters?
2. What is  $\frac{1}{2}$  of a meter?
3. Which is longer? 600 centimeter or 3 meters? Why?
4. 800 cm = \_\_\_\_\_ m
5. 1000 cm = \_\_\_\_\_ m

### Activity 3

Write  $>$ ,  $<$ ,  $=$  in the box  to complete the statement.

1. 7m  300 cm + 400 cm
2. 600cm – 200cm  10 m
3. 5m + 6m  20 000 cm
4. 1 100 cm – 900 cm  2m

5.  $1\text{ m} + 2\text{ n}$    $500\text{ cm}$



## *What I Have Learned*

How is meter converted to centimeter? Centimeter to meter?

- To convert meter to centimeter, multiply the number of meters by 100.
- To convert centimeter, multiply the answer of meters by 100.

## What I Can Do

### Activity 4

A. Write True or False for each statement.

\_\_\_\_\_ 1. When you change meter to centimetre, you multiply.

\_\_\_\_\_ 2. There are 75 centimetres in  $\frac{3}{4}$  of a meter.

B. Write multiply or divide to tell how you change the units.

\_\_\_\_\_ 3. m to cm

\_\_\_\_\_ 4. cm to m

C. Read and answer the word problem.

5.) What is the correct answer  $1\text{ m} + 2\text{m}$  is ( less than, greater than, equal to)  $30\text{m}$ .



## *Test Yourself* (assessment)

Convert the following into unit of measurement.

1. 5 meters = \_\_\_\_\_ centimeters

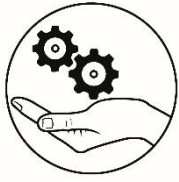
2. 300 centimeters = \_\_\_\_\_ meters

3.  $\frac{1}{2}$  of a meter = \_\_\_\_\_ centimeters

4.  $\frac{1}{4}$  of a meter = \_\_\_\_\_ centimeters

5. 800 centimeters = \_\_\_\_\_ meters



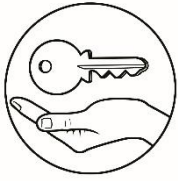


## *Additional Activities*

### *(Activity 5)*

Answer the following word problem.

1. How many meters are there in 23 000 centimeters?
2. The school gate measures 3 meters in width. What is the width of the gate in centimeters?
3. The flagpole measures 600 centimeters long. What is the height of the flagpole in meter?
4. The school fence measures 5 meters long. What is the measurement school fence in centimeter?
5. Roy has 2 meter long wire. Can he cut it into 5 pieces that measure 25 centimeters each? Why?



## *Answer Key*

### Pre test

1.  $4 \times 3 = 12$
2.  $3 \times 4 = 12$
3. 8
4. 9
5. 4

### Test Yourself

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

### Review

1. 4
2. 5
3. 6
4. 4
5. 7

### Activity 2

1.  $120 + 27 = 147$
2.  $40 + 16 = 56$
3.  $56 + 32 = 88$
4.  $120 + 36 = 156$
5.  $250 + 30 = 280$

### Activity 3

1.  $10 + 2$   
 $\underline{\quad x \quad} 4$
2.  $20 + 5$   
 $\underline{\quad x \quad} 2$

3.)  $30 + 9$   
 $\underline{\quad X \quad} 5$

4.  $40 + 1$   
 $\underline{\quad X \quad} 8$

5.)  $50 + 7$   
 $\underline{\quad X \quad} 3$

## Activity 4

1. 248
2. 60
3. 58
4. 189
5. 328

## Activity 5

1. 105
2. 180
3. 518
4. 252
5. 285

## ***References***

***Lesson Guide in Elementary Mathematics  
Grade 3, pages 202-203***

***Mathematics Teacher's Guide Grade 3 pages  
131-134***

***Mathematics Kagamitan ng Mag-aaral  
Sinugbuanong Binisaya pages 122-124***

