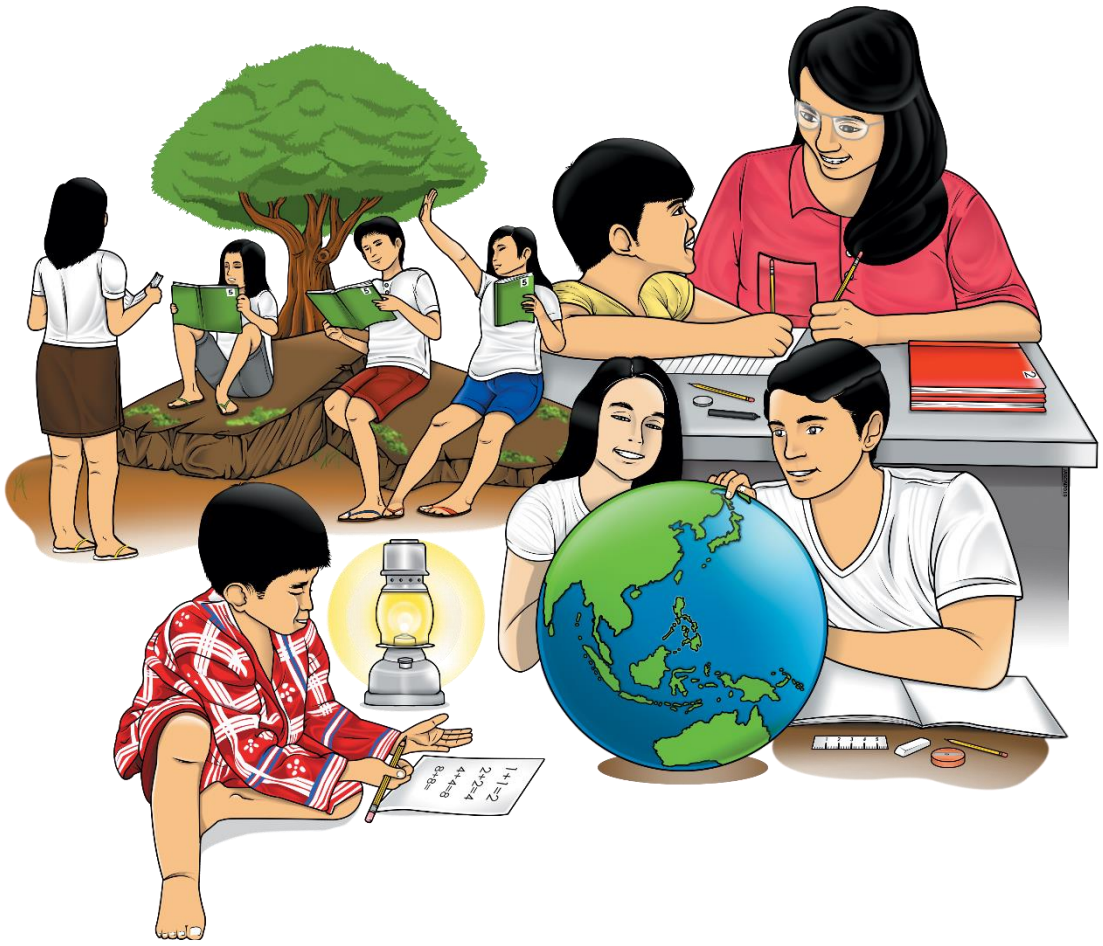
3

Mathematics

Quarter 4 – Module 67:

SOLVING ROUTINE AND NON-ROUTINE PROBLEMS INVOLVING CONVERSIONS OF COMMON UNITS OF MEASURE SOLVING ROUTINE AND NON-ROUTINE PROBLEMS INVOLVING CONVERSIONS OF COMMON UNITS OF MEASURE

Code M3N5-2d-43.5



3

Mathematics

Quarter 4 – Module 67:

SOLVING ROUTINE AND NON-ROUTINE PROBLEMS INVOLVING CONVERSIONS OF COMMON UNITS OF MEASURE SOLVING ROUTINE AND NON-ROUTINE PROBLEMS INVOLVING CONVERSIONS OF COMMON UNITS OF MEASURE

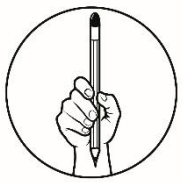
What I Need to Know

Introduction

This module was designed and written with you in mind. It is here to help you comprehend whole numbers. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

After going through this module, you are expected to:

Solve routine and non-routine problems involving conversions of common units of measure



What I Know

Direction: Read and solve the problems. Use the 4-step in solving word problem.

1. Kate weighs 45 kg. Her sister is 40 kg. What is their total weight in grams?

2. Carol bought 3 bottles of conditioner. Each bottle contained 400 ml of the conditioner. How many liters did the 3 bottles contain?

3. A ribbon was 300 cm long. How long it is meters?

LESSON 67	SOLVING ROUTINE AND NON-ROUTINE PROBLEMS INVOLVING CONVERSIONS OF COMMON UNITS OF MEASURE

An ICT room is 19 meters long. How many centimeters is that?

What's In

Recall on conversions of common units of measure.

Solve and supply the missing numbers.

1. 4 L = _____ ml
2. 5 ½ m = _____ cm
3. 6,000 g = _____ kg
4. 82,000 mL = _____L
5. 14 kg = _____ g

What's New

Activity 1

Direction: Solve the problems using the following steps.

Understand

What is given? _____

What is being asked?_____

Plan

How will you solve the problem? _____

Solve

_____

Look back

is the answer correct?

What is the correct label/ unit?

State the complete answer. _____

1. A can contains 1.5 liters of water. The teacher asks you to put the water in 250 mL bottles. How many bottles does the teacher need?
2. Shadie drinks 4,000 milliliters of water in one day. How many liters does she drink?

What is It

To solve a one-step word problems involving conversion of common unit of measure, follow the 4-step plan in problem solving.

Let us try to solve the problem given a while ago.

An ICT room is 19 meters long. How many centimeters is that?

Understand

What is given? 19 meters long

What is being asked? The numbers of centimeters

Plan

How will you solve the problem? 19 x 100 = N

Solve

19 x 100 = 1,900

Look back

is the answer correct?

What is the correct label/ unit?

State the complete answer. 1,900 centimeters

What's More

Activity 2

Direction: Read and solve the following problem. Use the 4-step in solving word problem.

1. A water container holds 5,000 ml. How many liters is this?
2. Nora needs 2 kg. kg malagkit in making biko. The store sells malagkit in 250- gram package. How many packages of malagkit should she buy?

Activity 3

Direction: Read and solve the following problem. Use the 4-step in solving word problem.

1. The class donates a box of noodles to typhoon victims. The content of a box of noodles weight 6 kilos. If each packet of noodles weight 60 g, how many packet are in the box?

What I Have Learned

- To solve a one-step word problems involving conversion of common unit of measure, follow the 4-step plan in problem solving.

Understand

What is given?

What is being asked?

Plan

How will you solve the problem?

Solve

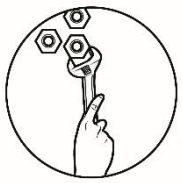
Look back

is the answer correct?

What is the correct label/ unit?

State the complete answer.

- The units of measure for length are meters (m)and centimeters (cm)
- The units to measure for mass/ weight are grams (g) and kilograms (kg)
- The units of measure for capacity are liters(L)and milliliters (ml)
-



What I Can Do

Activity 4

Direction: Read and Solve the following problem. Use the 4-step in solving word problem.

1. Mother bought 3 kg of oranges, 4 kg of bananas, and 2 kg of mangoes. How many grams of fruits did she buy in all?
2. A pale holds 250 L of water. How many milliliters of water can it hold?

Assessment

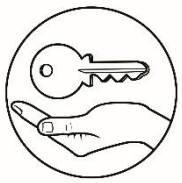
Direction: Read and solve the problems. Use the 4-step in solving word problem.

1. It takes 2 liters of ice tea to fill Cary's Thermos. How many milliliters does the Thermos hold.
2. A pupil weighs 40 kilograms. How much is it in grams?
3. Mark measure the length of teacher's table. He found it to be 150 cm long. How long is her teacher's table in meters?

Additional Activities

Direction: Read and solve the problem. Use the 4-step in solving word problem.

1. Teresa bought 5 dozen sachets of 50 grams of powder juice. What is the total weight in grams? In kilograms?



Answer Key

What I know

1. Understand

What is given?45 kg, 40 kg.
What is being asked? No. of grams
Plan
How will you solve the problem? 45+40=N/95x1000=N
Solve
45+40=95/ 95x1000=95 000g
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 95,000 g

2. Understand

What is given? 45 kg, 40 kg.
What is being asked? No. of grams
Plan
How will you solve the problem? 45+40=N/95x1000=N
Solve
45+40=95/ 95x1000=95 000g
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 95,000 g

3. Understand

What is given? 3cm long

What is being asked? No. of meters
Plan
How will you solve the problem? 3 x 100=N
Solve
3x100=300
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 300m

What I Can Do

Act.4

1.Understand

What is given?3kg, 4kg, 2 kg
What is being asked? No. of grams
Plan
How will you solve the problem? 3+4+2=N / 9x1000=N
Solve
3+4+2=9 / 9x1000=9000
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 9g

2. Understand

What is given?250L
What is being asked? No. of milliliters
Plan
How will you solve the problem? 220x1000=N
Solve
250x1000=250,000
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 250,000mL

What's New

1.Understand

What is given? 1.5L
What is being asked? No. of bottles
Plan
How will you solve the problem? 1.5 x1000=N
1500÷250=N
Solve
1.5x1000=1500/ 1500÷250=6
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 6 bottles

2. Understand

What is given? 4000ml
What is being asked? No. of liters
Plan
How will you solve the problem? 4000÷1000=N
Solve
4000÷1000=4
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 4L

What's More

Act.2

1.Understand

What is given?5000ml
What is being asked? No. of liters
Plan
How will you solve the problem? 5000÷1000=N
Solve
5000÷1000=5
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 5L

2. Understand

What is given?2kg, 250g
What is being asked? No. of packages
Plan
How will you solve the problem? 2x 1000=N/ 2000÷250=N
Solve
2x1000=2000/ 2000÷250=8
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 8packages

Act.3

1.Understand

What is given?6 kl, 6g
What is being asked? No. of packets
Plan
How will you solve the problem? 6x1000=N / 6000÷60=N
Solve
6x1000=6000 / 6000÷60=100
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 100 packets

Assessment

1.Understand

What is given?2L.
What is being asked? No. of mL
Plan
How will you solve the problem? 2x1000-N
Solve
2x1000=2000
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 2000mL

2. Understand

What is given?40 kg.
What is being asked? No. of grams
Plan
How will you solve the problem? 40x1000=N
Solve
40x1000=40 000
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 40,000 g

3. Understand

What is given?150cm long

What is being asked? No. of meters
Plan
How will you solve the problem? 150 x 100=N
Solve
3x100=300
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 300m

Additional Activities

1.Understand

What is given?50 dozen, 50 g
What is being asked? No. of grams
Plan
How will you solve the problem? 5 x 12=N / 60x50=N / 3000÷1000=N
Solve
5x12=60/ 60x50=3000 / 3000÷1000=3
Look back
is the answer correct?
What is the correct label/ unit?
State the complete answer. 3g