



Helping With Math

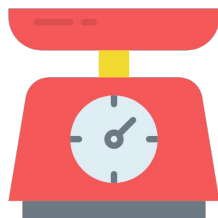
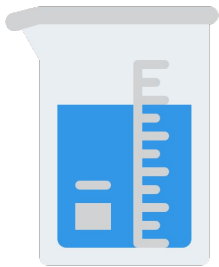
Measuring and Estimating Liquid Volumes and Masses



GRADE 3



Liquid volume is expressed as cubic units of liquid measurements such as liters, milliliters etc. Meanwhile, mass is also a unit of measurement that weighs how heavy an object is, either in the units of kilogram or gram.



Hi! I'm Mark, a salesman. The instruments you see on the left are tools used to measure liquid volume and mass.



LIQUID VOLUME

- ★ It is the amount of space occupied by a liquid at rest or at their containers
- ★ It is measured through liquid measurement

MASS

- ★ It is a measure of how much matter is in an object
- ★ It is commonly measured by how much something weighs

Measuring and Estimating Liquid Volumes and Masses



CONCEPT OF LIQUID VOLUME

2 COMMON MEASUREMENTS OF VOLUME

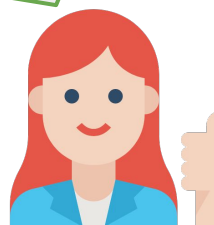
MILLILITER

- ❑ Measures a very small amount of liquid
- ❑ It is often written as mL

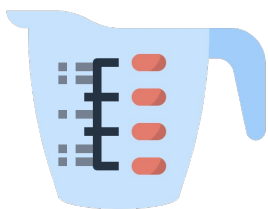


LITER

- ❑ It is equivalent to 1000 milliliter
- ❑ It is often written as L

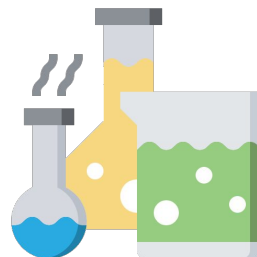


INSTRUMENTS USED IN MEASURING LIQUID VOLUME



MEASURING CUP

- ❖ It is the commonly used measuring instrument
- ❖ It is used in the kitchen for adding liquid ingredients in a measured quantity



LABORATORY TOOLS

- ❖ It is used in laboratories for clinical and scientific purposes
- ❖ It is useful in measuring liquids with precision for carrying out tests with chemicals and others



CONCEPT OF LIQUID VOLUME

COMMON TYPES OF LIQUIDS



Water

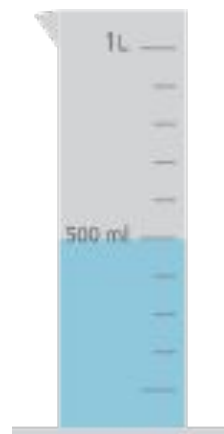


MEASURING AND READING LIQUID VOLUME

Read the volume of the liquid by getting the measurement of the upper portion of the liquid



300 mL



500 mL



CONCEPT OF MASS

2 COMMON MEASUREMENTS OF MASS

GRAM

- ❑ It is used to measure the weight or mass of light objects



KILOGRAM

- ❑ It is used to measure the weight or mass of a heavier object

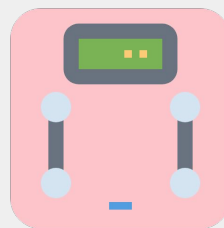


INSTRUMENTS USED IN MEASURING MASS



KITCHEN SCALE

- ❖ It is used to measure small quantities of food



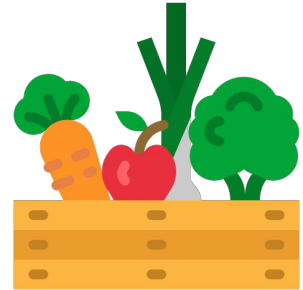
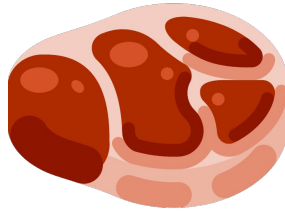
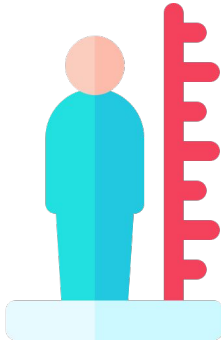
DIGITAL SCALE

- ❖ It is used to measure a person's weight

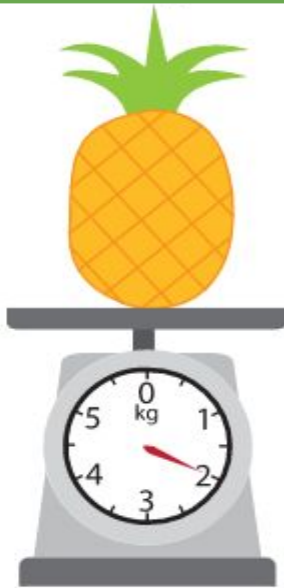


CONCEPT OF MASS

COMMON TYPES OF OBJECTS THAT ARE BEING WEIGH

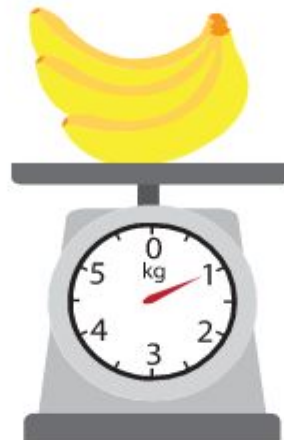


MEASURING AND READING OBJECT MASS



2 kg

In reading the mass of an object, just follow the number that the red line is pointing to



1 kg



EXERCISE

Identify whether the given is liquid volume or mass. Write LV for liquid volume and M for mass. Measure the given afterwards.

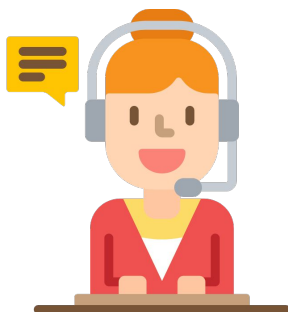
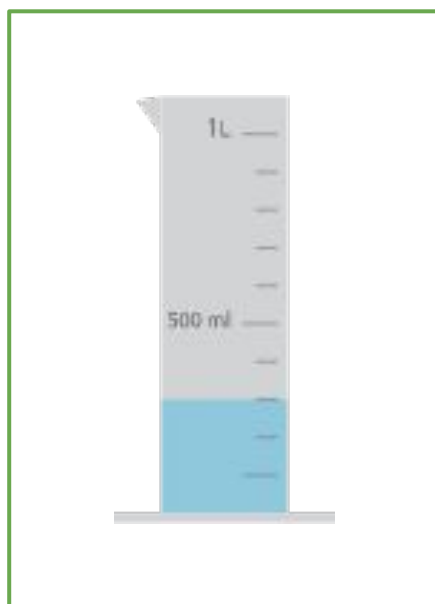
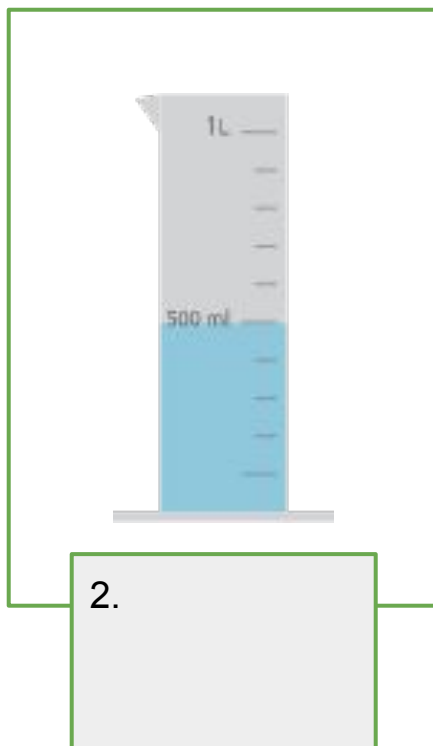
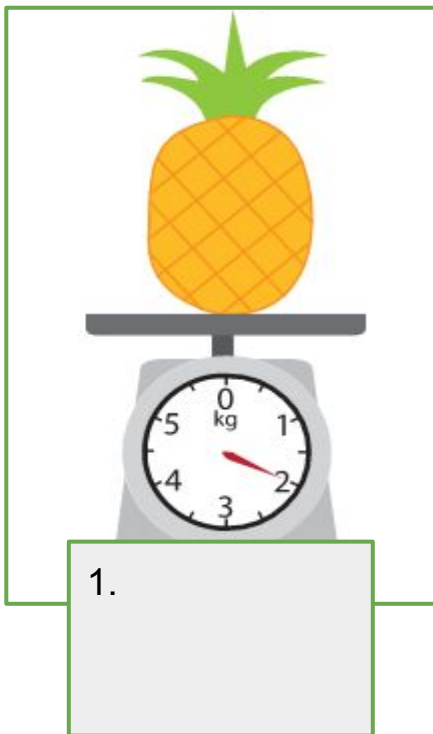


TABLE OF ACTIVITIES

1. Coupon Match
2. At the Grocery Store
3. Tim's 1st Grocery
4. Liquid's List
5. Grocery Stocks
6. Grocery Mass Products Sort
7. Liquid Goods Sortation
8. HWM Supermarket's Inside Problems
9. Own Good's Measurement
10. Supermarket Experience



COUPON MATCH

It's HWM Supermarket's opening day! The first 4 people in the line will get discount coupons! Match the liquid volume and mass concept with their respective definition. Draw a line to connect them.

LIQUID VOLUME

1.



It is a measure of how much matter is in an object

A



MILLILITER

2.



It is used to measure the weight or mass of a heavier object

B



MASS

3.



It is the amount of space occupied by a liquid at rest or at their containers

C



KILOGRAM

4.



Measures a very small amount of liquid

D



Measuring and Estimating Liquid Volumes and Masses

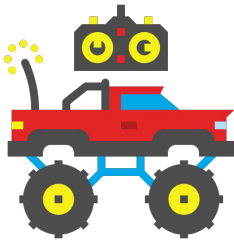


AT THE GROCERY STORE

Here are some products at the grocery store! Choose a unit to measure the weight of each item. Write g for grams and Kg for kilograms.



1.



2.



3.



4.

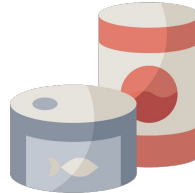


TIM'S 1ST GROCERY

Help Tim reach the grocery store and buy goods he needs! Choose the best estimate for each object shown. Encircle your answer.

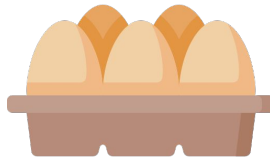


4.



40 grams 4 kilograms 400 grams

3.



70 grams 4 kilograms 700 grams

2.



100 grams 1 kilogram 100 kilograms

1.



18 grams 4 kilograms 8 kilograms



Measuring and Estimating Liquid
Volumes and Masses

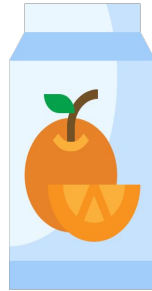


LIQUID'S LIST

Help Martina buy her list in the grocery store! Choose a unit to measure the capacity of each item shown below. Write L for liters and mL for milliliters.



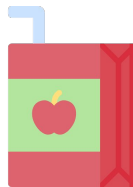
1.



2.



3.



4.

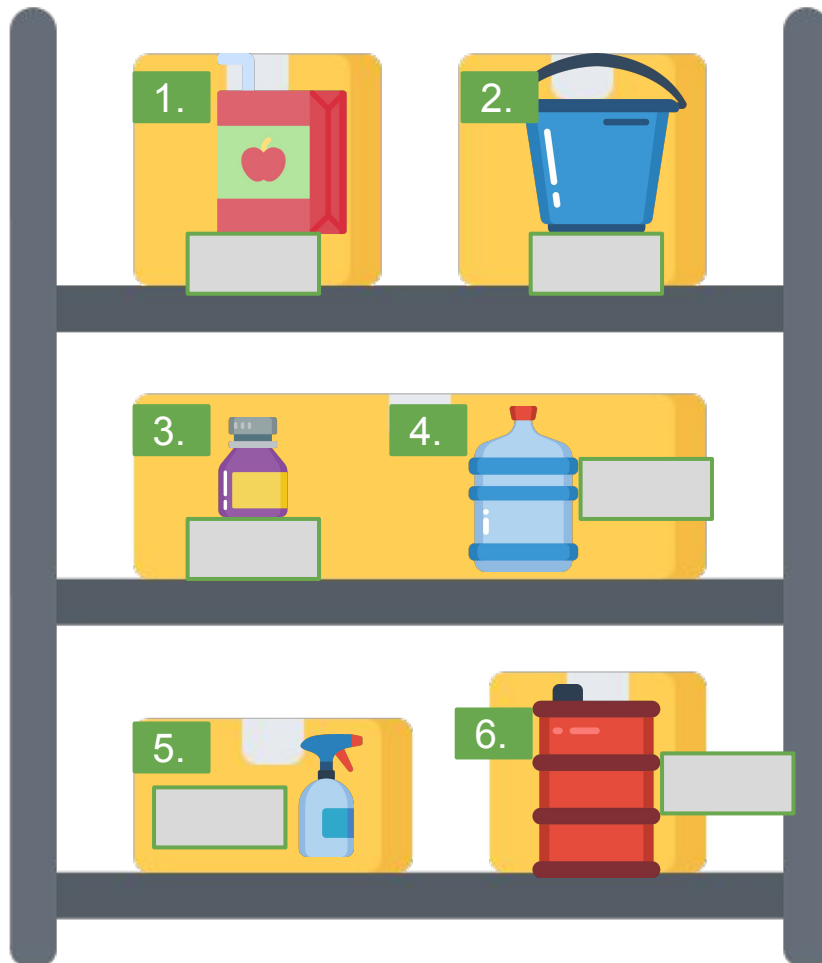


GROCERY STOCKS

Help the manager arrange the stocks! Does each object shown below hold more or less than 1 liter? Write M if your answer is more and L if less.



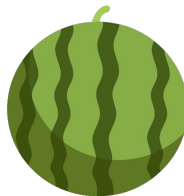
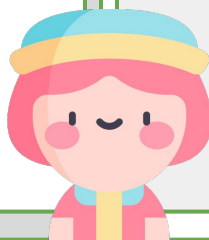
More or Less?



GROCERY MASS PRODUCTS SORT

Help Laica sort mass products! Cut each picture and decide if you would use grams or kilograms to weigh it.

GRAMS	KILOGRAMS



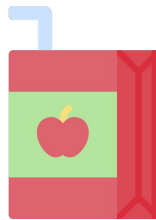
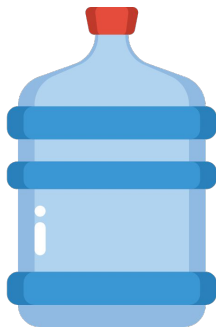
LIQUID GOOD SORTATION

Help Marvin sort liquids! Cut and paste each picture with their designated liquid volume unit.

MILLILITER



LITER



Measuring and Estimating Liquid
Volumes and Masses



HWM SUPERMARKET'S INSIDE PROBLEMS

Aside from the grocery proper, the HWM Supermarket have different services to offer. Solve the following word problems.



1.

HWM BOOKSTORE

A pencil weighs 25 g, an eraser weighs 20 g, a ruler weighs 15 g, and a pack of colored markers weighs 490 g. What is the total weight of Liza's things?



2.

HWM CLINIC

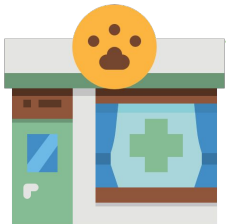
Grace is 14 kg heavier than her brother who weighs 56 kg. What is the weight of Grace?



3.

HWM VETERINARY CLINIC

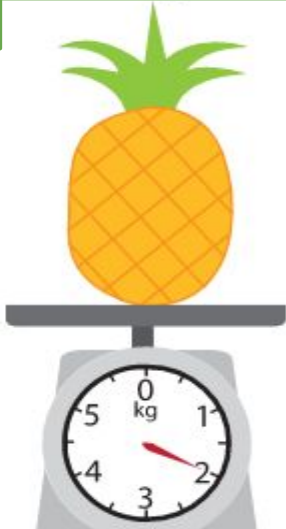
The weight of Mary's puppy is 6 kg. What is the total weight of 4 puppies of the same weight?



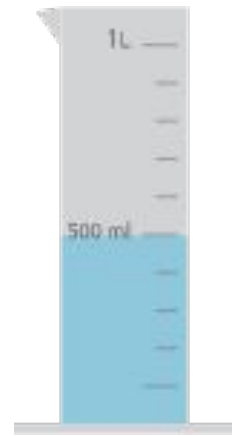
OWN GOOD'S MEASUREMENT

Time for you to measure products in your list! Measure the following mass and liquid volume objects. Write your answer on the space provided.

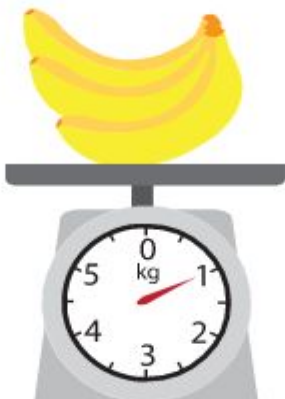
1.



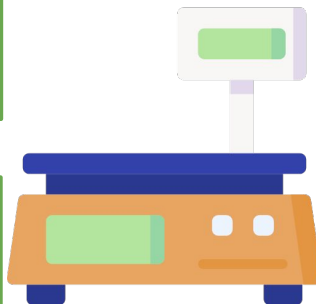
2.



3.



4.



Measuring and Estimating Liquid Volumes and Masses



SUPERMARKET EXPERIENCE

Share your grocery experience! Simply answer the questions below.

1. Is the topic easy, average, or difficult for you to understand? Why?



2. Cite 3 ways on how will you improve your learning in this kind of topic.



ANSWER GUIDE

Activity 1

1. C
2. D
3. A
4. B

Activity 2

1. g
2. g
3. g
4. kg

Activity 3

1. 18 grams
2. 100 grams
3. 70 grams
4. 400 grams

Activity 4

1. L
2. L
3. mL
4. mL



ANSWER GUIDE

Activity 5

- | | |
|------|------|
| 1. L | 4. M |
| 2. M | 5. L |
| 3. L | 6. M |

Activity 6

Grams: Pencil, Book

Kilograms: Rice Sack, Watermelon, Meat

Activity 7

Milliliter: Apple juice, Glue, Shampoo

Liter: Paint, Water, Milk

Activity 8

- | | | |
|----------|----------|----------|
| 1. 550 g | 2. 70 kg | 3. 24 kg |
|----------|----------|----------|

Activity 9

- | | |
|-----------|-----------|
| 1. 2 kg | 3. 1 kg |
| 2. 500 mL | 4. 300 mL |

Activity 10

Answers may vary as the activity is subjective.



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