



Measuring Liquid Volume in Metric Units

Unit 2 Lesson 6

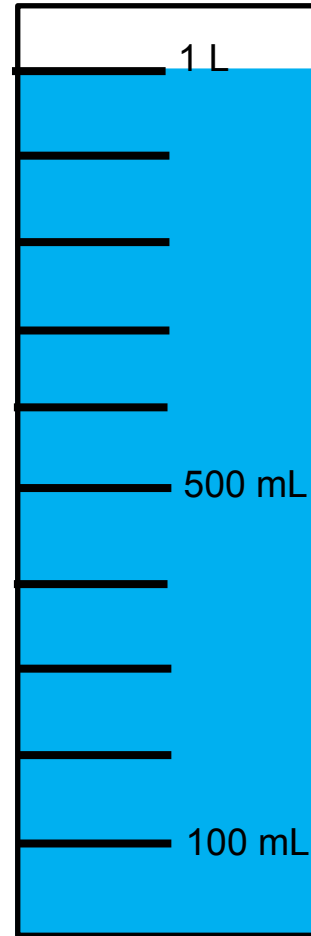
How do you measure liquid volume?

Liquids are all around us. We drink glasses of water. We use bottles and cans to store juice or soda. These examples of **liquids can be measured** and their measurement is called their liquid volume. Liquid volume is defined as the amount of **three-dimensional space occupied by any form of liquid in a container**. Water occupies the space of an empty bottle. Coffee can occupy the space of a mug. The volume is measured using beakers, cylinders, or any labeled container. **The unit of measurement for liquid volume can be Liters (L) or milliliters (mL).**

That means that **the liquid volume shows a value and a unit of measurement**. The value signifies how much cubic space it occupies and the unit of measurement labels that value. Take note that a Liter is greater than a milliliter. This means that **a Liter is made up of many milliliters**.

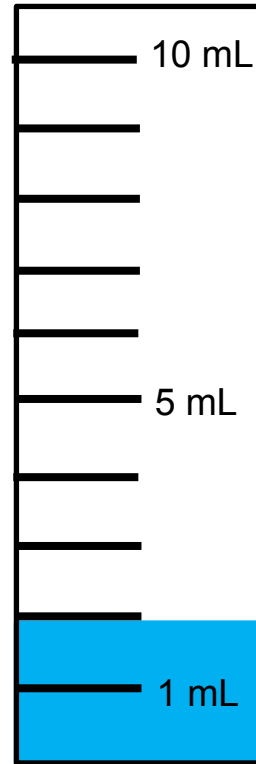
To be more specific, **1 L is equal to 1000 mL**. The prefix milli- actually means a thousandth of something. In this case, a thousandth of a Liter.

How do you measure
liquid volume?

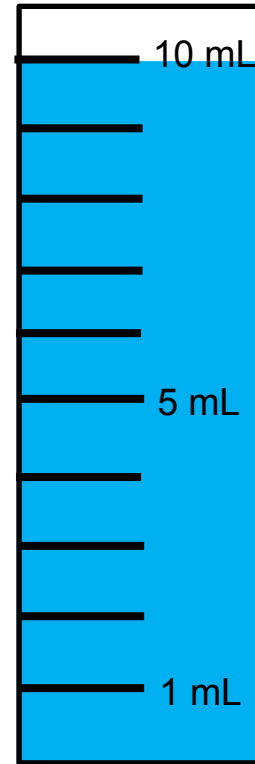


1 Liter is equal to 1000 milliliters
Therefore, 1 milliliter is less than 1 Liter
because 1 Liter is 999 milliliters more than 1 milliliter.

How do you measure liquid volume?



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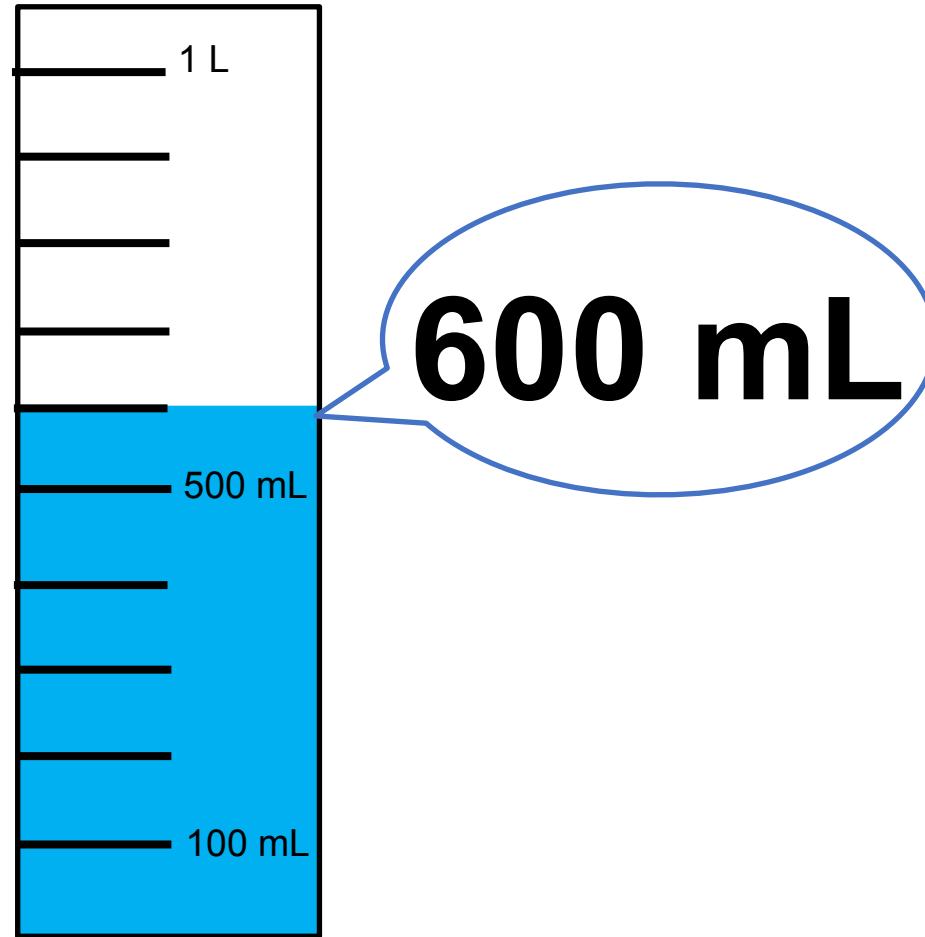
x 200

2 Liters has more volume than 2 milliliters.

2 Liters is equivalent to 2000 milliliters.

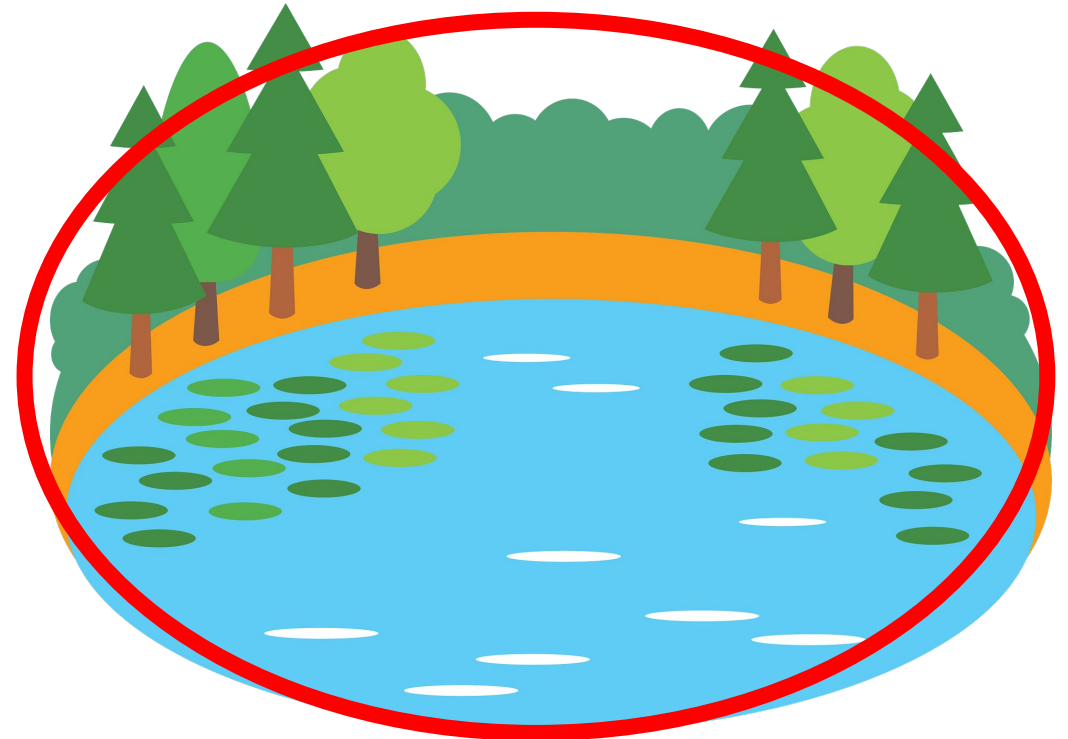
2000 milliliters can be solved by multiplying 10 mL by 200

How do you measure
liquid volume?

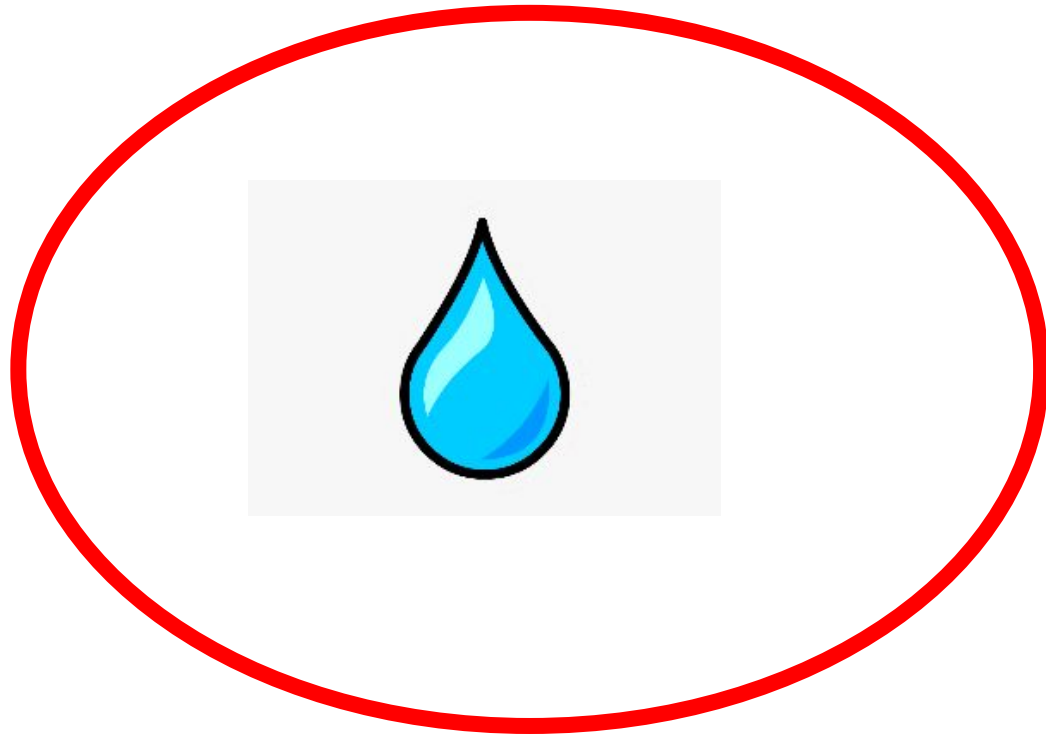


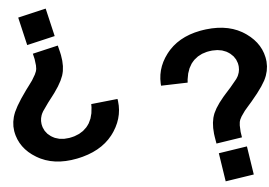
The measurement liquid volume includes
a **value**
and a **label**.

Encircle the one with the greater liquid volume

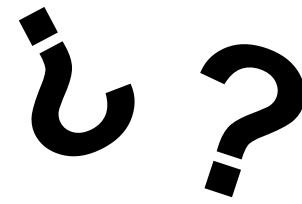


Encircle the one with the lesser liquid volume





Time to Think



- 1. What unit can be labeled for liquids that occupy greater space?
What unit can be labeled for lesser liquid volumes?**

➤ Liquid volumes that occupy greater space can be labeled with Liters (L).
On the other hand, lesser liquid volumes can be labeled milliliters (mL).
Milliliters make up Liters.

- 2. List 3 things that are less than 1 Liter.**

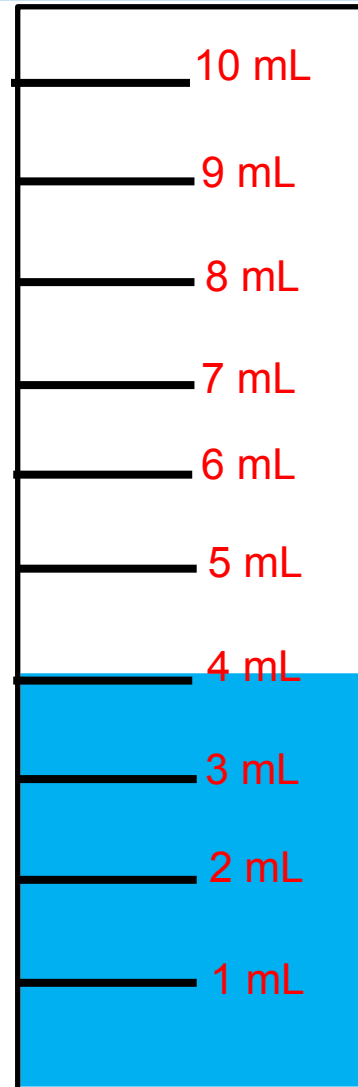
➤ Things that can be less than a Liter are a small juice box, a can of soda, and a puddle of water.

- 3. List 3 things that are as much as a 1 Liter.**

➤ Things that can be as much as 1 Liter are a pitcher of lemonade, two 500 mL bottles of water, and a carton of milk.

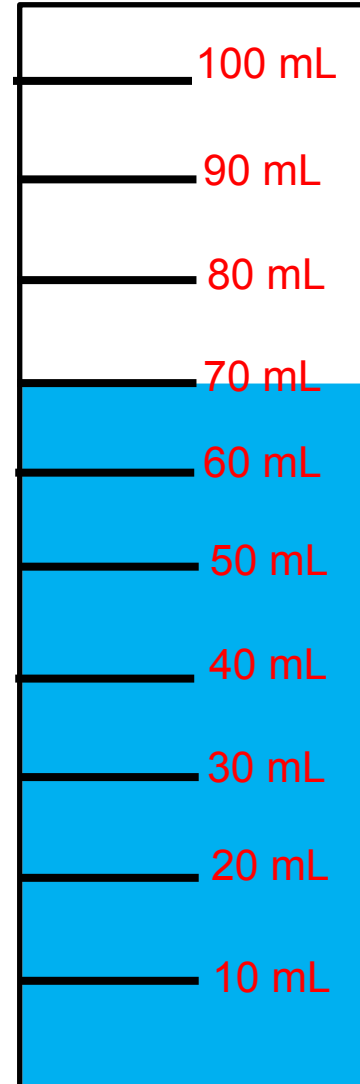
Label the partitions with intervals of 1 from 1 mL – 10 mL

Fill up the container up to 4 mL.



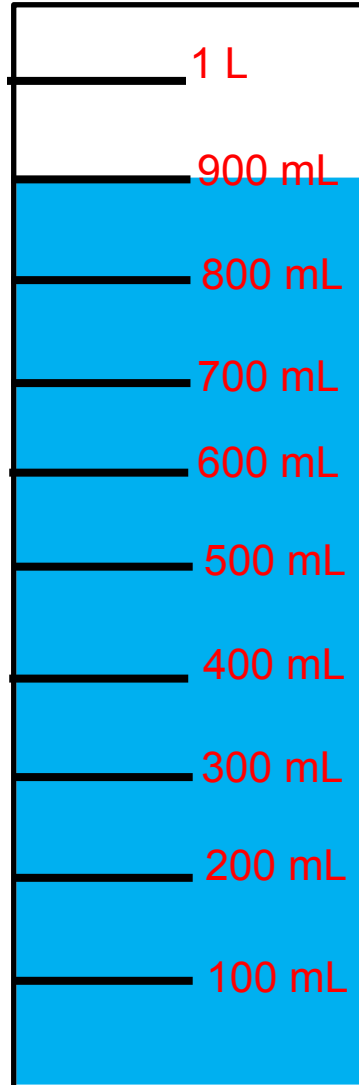
Label the partitions with intervals of 10 from 10 mL – 100 mL

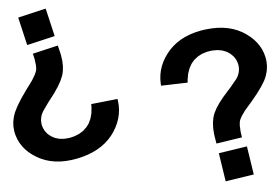
Fill up the container up to 70 mL.



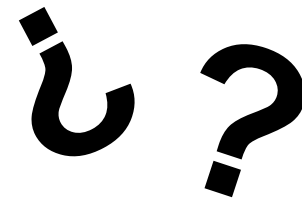
Label the partitions with intervals of 100 from 100 mL – 1 L

Fill up the container up to 900 mL.





Time to Think



1. How is measuring liquid volume related to reading a number line?

➤ Measuring liquid volume is similar to reading a number line because the progression of intervals in the measuring device looks like a vertical number line. The container can be partitioned into intervals of 100 to reach until 1000 milliliters.

➤ **2. How many 100 milliliters are there in 1 Liter?**

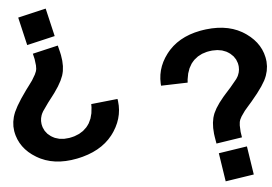
Since 1000 divided by 100 is 10, there are ten 100 milliliters in a Liter.

Complete the table below

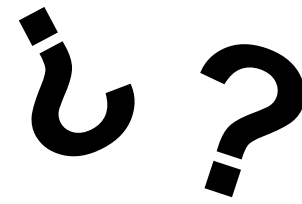
There are...	in...
10 one grams	10 grams
10 ten grams	100 grams
10 hundred grams	1000 grams
1000 grams	1 kilogram

Complete the table below

There are...	in...
10 one milliliter	1 ten milliliters
10 ten milliliters	1 hundred milliliters
10 hundred milliliters	1000 milliliters
1000 milliliters	1 Liter



Time to Think



1. How are Liters and milliliters related to kilograms and grams?

➤ Liters and milliliters are similar to kilograms and grams because they both deal with values from 1 to 1000. They are both related to the progression of place values from ones to thousands.

2. If there are 700 milliliters, how many hundred milliliters are there? How many ten milliliters are there? How many Liters are there?

➤ There are 7 hundred milliliters in 700 milliliters. There are 70 ten milliliters in 700 mL. There are 0.7 L in 700 milliliters.