

3rd Grade Math: Liters and Milliliters

What Are Liters and Milliliters?

- **Liters (L)** and **milliliters (mL)** are units of volume in the metric system, used to measure liquids.
 - **Milliliters** are used for small amounts of liquid, like a spoonful of medicine.
 - **Liters** are used for larger amounts of liquid, like a bottle of water.
- **1 liter = 1,000 milliliters.**

How to Measure Volume in Liters and Milliliters

1. **When to Use Milliliters:**
2. Use **milliliters** to measure small quantities of liquid, like the amount in a water bottle cap or a juice box.
3. **When to Use Liters:**

Use **liters** to measure larger quantities of liquid, such as the capacity of a soda bottle or a bucket of water.

Converting Between Liters and Milliliters

- To convert liters to milliliters, multiply the number of liters by 1,000.

$$1 \text{ liter} = 1,000 \text{ milliliters}$$

- To convert milliliters to liters, divide the number of milliliters by 1,000.

$$1,000 \text{ milliliters} = 1 \text{ liter}$$

Example 1: Converting Liters to Milliliters

Problem:

How many milliliters are in 3 liters?

Solution:

Multiply the number of liters by 1,000:

$$3 \text{ liters} \times 1,000 = 3,000 \text{ milliliters}$$

Answer:

3 liters = 3,000 milliliters.

Example 2: Converting Milliliters to Liters

Problem:

How many liters are in 2,500 milliliters?

Solution:

Divide the number of milliliters by 1,000:

$$2,500 \text{ milliliters} \div 1,000 = 2.5 \text{ liters}$$

Answer:

2,500 milliliters = 2.5 liters.

Example 3: Adding Volumes

Problem:

You have 1 liter of water and 500 milliliters of milk. What is the total volume in milliliters?

Steps:

1. Convert 1 liter of water to milliliters:

$$1 \text{ liter} \times 1,000 = 1,000 \text{ milliliters}$$

2. Add the two volumes together:

$$1,000 \text{ milliliters} + 500 \text{ milliliters} = 1,500 \text{ milliliters}$$

Answer:

The total volume is 1,500 milliliters.

Conclusion:

- **Liters** and **milliliters** are useful units for measuring liquid volumes. **Liters** are for larger quantities, while **milliliters** are for smaller ones.
- Remember that **1 liter = 1,000 milliliters**. By practicing conversions, you can solve real-world problems involving liquids!