

Measurement Notes

The Metric System

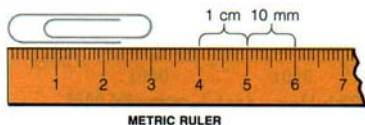
- The _____
- The International System of Units (SI)
- based on the number _____ and multiples of _____

Length

- _____
- **Meter (m)** = basic unit of length = _____ inches
- Metric rulers and _____ used to measure

Meter stick -- 1 meter or 100 cm or 1000 mm long

Metric ruler -- 30 cm or 300 mm long



Volume

- The amount of _____ an object takes up
- **Liter (L)** = _____
- **Cubic Centimeter (cc or cm³)** - used to measure the volume of _____

$$1 \text{ ml} = 1 \text{ cc} = 1 \text{ cm}^3$$

$$1000 \text{ ml} = 1 \text{ L}$$



Liquid:

- Measured with _____

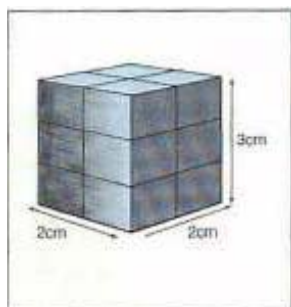
_____ -- the curved surface of a liquid in a graduated cylinder. Read the _____ of the meniscus.

Irregular solid:

Measure out some water in the cylinder. This is _____. Drop the solid into the liquid causing the water level to go up. This is _____. _____ volume 1 from volume 2 to get the volume of the solid.

Solid:

volume = _____



What is the volume of this cube?

Mass

- The measure of the amount of _____ in an object
- **Kilogram (kg)** = basic unit of mass
- Measured with _____



Density

- The mass per unit volume of a substance
- Density = _____
- Density of water = _____
- Objects with density _____ than 1 g/mL float on water.
- Objects with density _____ than 1 g/mL sink in water.

What two tools would you use to find density?

Temperature

- **Celsius** scale is usual measurement but _____
- The Kelvin temperature can be found by adding 273 to the Celsius reading

Water freezes at _____
Water boils at _____
Body temperature = _____
Room Temperature = _____



- measured with _____

Time

- The _____ between two events
- Second

