

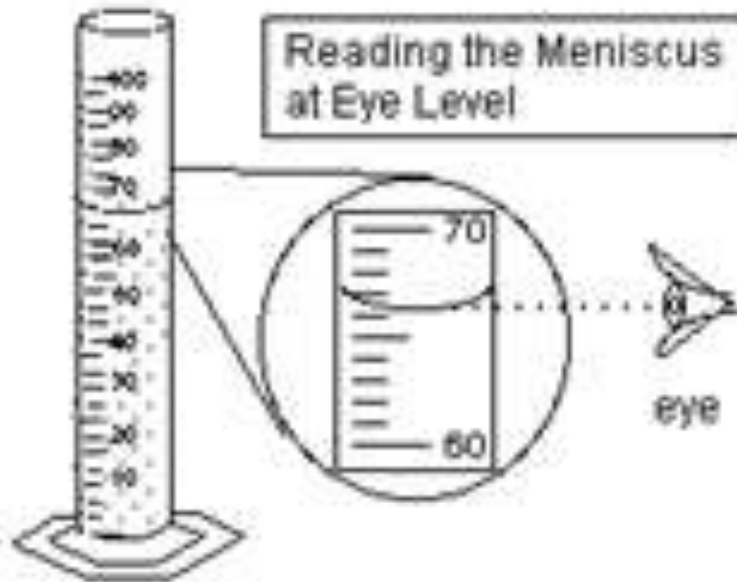
The background features a gradient of blue and purple hues with abstract, flowing lines. A thin white horizontal line is positioned below the text.

Graduated Cylinder

Reading a Graduated Cylinder

- Used to measure liquids
- Choose the smallest size that can hold the volume of liquid you need to measure. If measuring less than 10 ml, use a 10 ml cylinder. If measures between 10 and 50 ml, use a 50 ml cylinder.
- Read the level of liquid at eye level at the bottom of the meniscus.

Reading Results



Meniscus – The concave surface of a liquid resulting from surface tension.

The molecules of water are more attracted to the glass walls of the cylinder than to the other water molecules, so they are drawn up the sides of the cylinder.

Note: Not all liquids do this; mercury, for instance, forms a convex meniscus.

- The marks on a graduated cylinder represent milliliters (ml).
- Liter is the basic unit of measurement for the volume of a liquid. Meter is the basic unit of measure for length or distance.
- In the metric system, there is a direct relationship between volume and length.
- One ml = one cubic centimeter (cc) or (cm^3). In other words, a cube measuring 1 cm on each side will hold 1 cc which is the same as 1 ml.
- The volume of a regular solid can be determined either by using a ruler or by water displacement in a graduated vessel.
- Irregular solids like glass fragments or rocks must be measured using water displacement.

Note: Although beakers and flasks have volume marks on their sides, they cannot be used to measure as accurately as a graduated cylinder or pipette.

