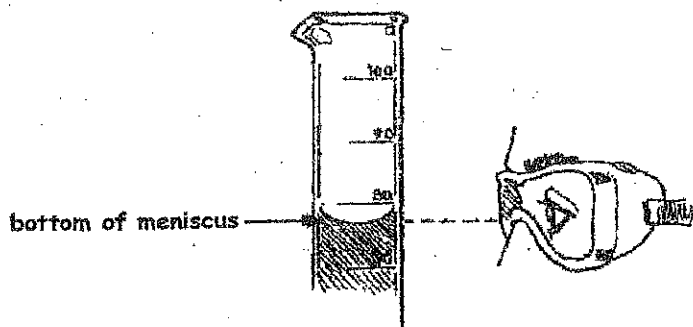


Using a Graduated Cylinder

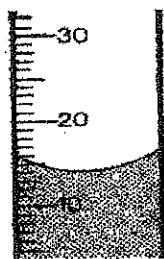
A graduated cylinder is used to measure liquid volume. The unit is the milliliter (mL). To use a graduated cylinder, you must remember the following:

- ✓ Place the graduated cylinder on a flat surface and view the height of the liquid in the cylinder with your eyes directly level with the liquid. The liquid will tend to curve downward. This curve is called the meniscus.
- ✓ The graduated cylinder will usually have heavy markings at 10, 20, 30 . . . milliliters. There are usually smaller markings in between the larger units called graduations. Read the graduated cylinder to the nearest tenth of a milliliter (31.5 mL or 30.0 mL).

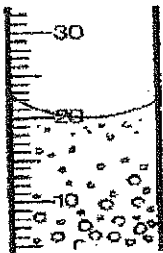
Notice how the liquid curves up the side of the graduated cylinder. To get the most accurate reading, read the measurement at the bottom of the curve, or *meniscus*.



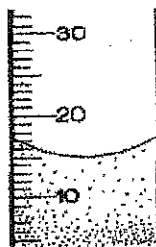
Determine the volume in the graduated cylinders and write the measurement, including number and unit (mL).



a. _____



b. _____



c. _____

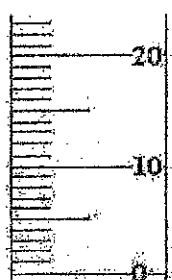


d. _____

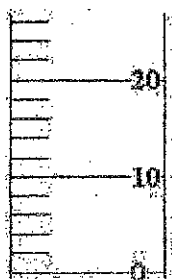
Graduated Cylinder Worksheet

A graduated cylinder can have numerous scales.

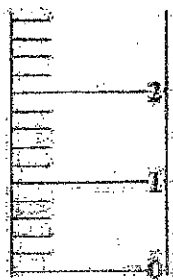
1) Determine the value for the minor grids on the cylinder.



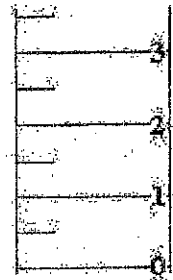
a) _____



b) _____

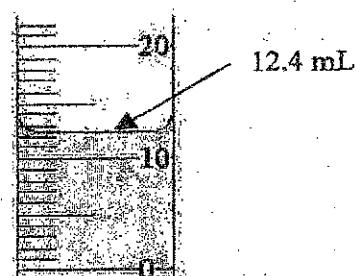


c) _____

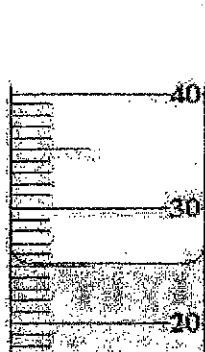


d) _____

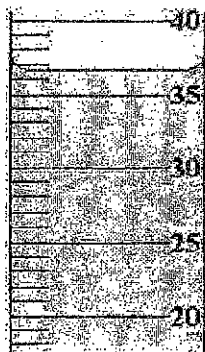
When reading a graduated cylinder you need to keep the graduated cylinder on the desk and lower your eyes to the level of the meniscus and you read where the bottom of the meniscus is. Be sure to include one point of estimation in your reading.



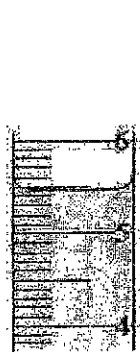
2) Determine the volume of the liquids in the following cylinders:



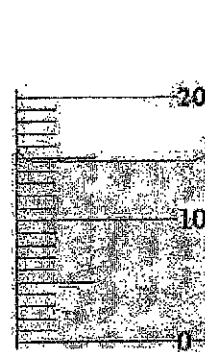
a) _____



b) _____

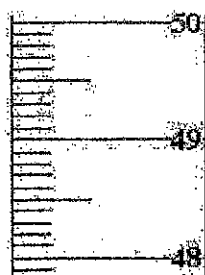


c) _____

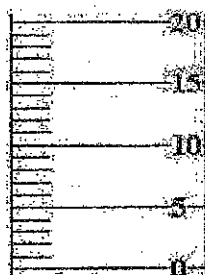


d) _____

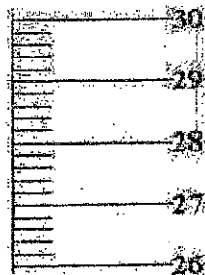
3) Draw in the meniscus for the following readings:



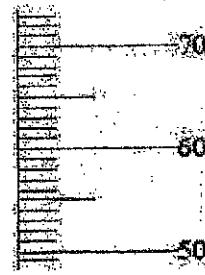
a) 49.21 mL



b) 18.2 mL



c) 27.65 mL



d) 63.8 mL