

Scientist: _____

Per: _____ Date: _____

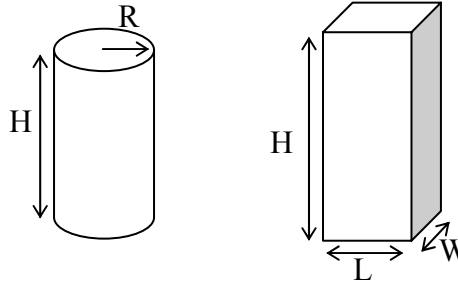
Volumes of Regular Shapes

You are going to calculate the volume of a few “regular” shapes. They are called regular because it is possible to use the equations for volume using length, width, height and radius to calculate the volume.

Objective: Calculate and measure different volumes.

Materials: Containers of different shapes, ruler, graduated cylinder, water

Procedure: 1. **USE METRIC UNITS! REMEMBER SIGNIFIGANT FIGURES!!!**
2. Measure the sides or radius and height of the objects in front of you.



Data: Table 1. Dimensions of different objects.

	Cylinder (<i>sig. figs. and error!</i>)	Rectangle (<i>sig. figs. and error!</i>)
Height (H)		
Radius (R)		
Length (L)		
Width (W)		
Volume (V)		

$$V_{\text{cylinder}} = \pi R^2 H$$

$$V_{\text{Rectangle}} = LWH$$

- Record the values in the chart
- Use the given equations to calculate the volume of the shapes.
- What are the units of the volumes you calculated? _____
- Next, measure 30mL and 50mL volumes in the graduated cylinders.

Analysis: 7. Which of the volumes will fit into which shape? _____

Conclusion: 8. What do you notice ? **1mL =** _____