

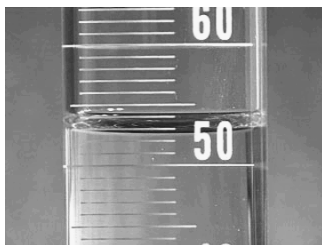
Names: \_\_\_\_\_

***Fundamental Measurements***  
***Part I: Length / Mass / Volume / Temperature***

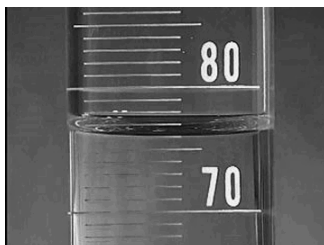
***Pre-Lab:***

*Refer to the presentation and reading links, which are found embedded in the Chem 106 Calendar.*

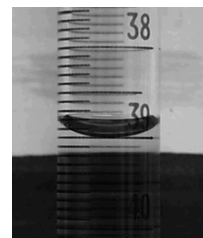
*Record accurate measurements (including units) for each of the following examples:*



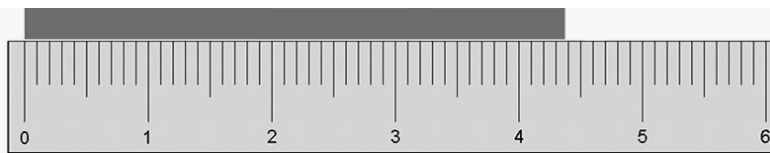
a. \_\_\_\_\_



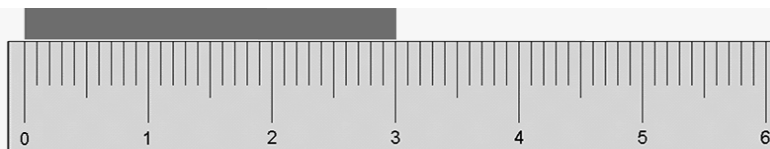
b. \_\_\_\_\_



c. \_\_\_\_\_

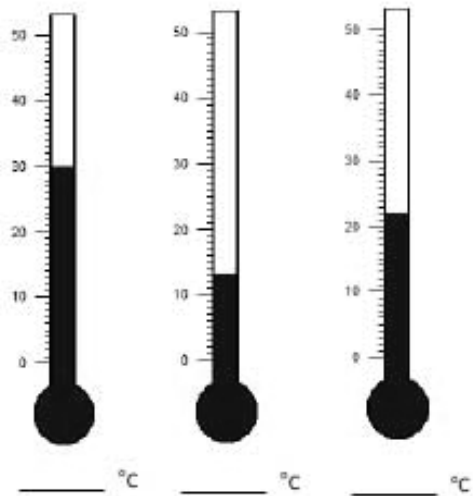


d. \_\_\_\_\_



e. \_\_\_\_\_

f.



*Part I: Length / Mass / Volume / Temperature*

*You are to complete the following data tables for a set of unknowns. Working with your lab partner, you will pick up an unknown set and ruler from Dr. R.*

You must plan a procedure using any equipment from your lab drawer and the analytical balances in the balance room adjoining the lab.

Complete the above questions. Write a brief outline of the procedure specifying the equipment to be used. Bring the outline and answers to Dr. R. for review and discussion of the procedure and equipment that you plan to use before you begin.

Unknown Bag #	
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***Metal Shot:***

Mass of beaker + metal shot	
- Mass of beaker	
Mass of metal shot	

**Volume by displacement:**

Level of water after adding metal shot	
- Initial level of water in graduated cylinder:	
Metal shot's volume by displacement	

***Marble:***

Mass of beaker + marble	
- Mass of beaker	
Mass of marble	

diameter	radius	Volume (calc)

**Volume by displacement:**

Level of water after adding marble	
- Initial level of water in graduated cylinder:	
Marble's volume by displacement	

***Metal Cylinder:***

Mass	length	diameter	Volume (calc)

**Volume By Displacement:**

Level of water after adding metal cylinder	
- Initial level of water in graduated cylinder:	
Metal cylinder's volume by displacement	

***Liquid:***

Volume

Mass of container + liquid	
- Mass of container	
Mass of liquid	

Boiling Point °C