

METRIC LENGTH LAB

I. **PROBLEM:** How is distance measured in the metric system and what units are used?

HYPOTHESIS: If I want to measure accurately in the metric system, then

I must use a _____

II. **MATERIALS:** Meter stick, penny, straight pin, microscope slide, shoe, and lab table.

III. **PROCEDURE:**

A. Draw the lines shown in data table.

B. Measure the lines seen in the data section.

C. Measure the penny, ~~straight pin~~, microscope slide, your height, your thumb and the length of your shoe. *paper clip*

IV. **DATA:**

1) Draw a line:


a) 10 centimeters long-


b) 1 centimeter long-


c) 10 millimeters long-

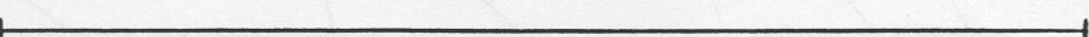
d) 1 millimeter long-

2) Measure the *length* of the lines below in *centimeter* and *millimeter*:

a.  = _____ cm and _____ mm

b.  = _____ cm and _____ mm.

c.  = _____ cm, _____ mm

d.  = _____

_____ cm and _____ mm

3) The *thickness* and *diameter* of a penny in **millimeters**.

_____ cm and _____ mm thick, _____ cm and _____ mm diameter

4) The *length* of a ~~straight pin~~ and the *diameter* of the head in **millimeters**.

paper clip *width of paper clip*

_____ mm length and _____ mm diameter

5) The *length*, *width*, and *thickness* of your lab table in **centimeters**.

_____ cm long, _____ cm wide, and _____ cm thick

6) The *length, width, and thickness* of a microscope slide in **centimeters**.

_____ cm wide, _____ cm wide, and _____ cm thick

7) The *length* of your thumb in **millimeters** and **centimeters**.

_____ mm and _____ cm

8) The *length* of your shoe in **millimeters, centimeters** and **meters**.

_____ mm, _____ cm, and _____ m

9) What is your *height* in **centimeters** and **meters**.

_____ cm and _____ m

V. DISCUSSION QUESTIONS:

1) How many **millimeters** are there in a **centimeter**? _____

2) How many **centimeters** are there in a **meter**? _____

3) How many **millimeters** are there in a **meter**? _____

4) What fraction of a **centimeter** is a **millimeter**? _____

5) What fraction of a **meter** is a **centimeter**? _____

6) What fraction of a **meter** is a **millimeter**? _____

7) What are the **base units** in the metric system? _____

8) The **prefix** for the metric units 1000, 100 and 10 are? _____

VI. CONCLUSION: Answer the problem statement.