The Metric System

I.   Metric System –

    a. Length –

    b. Volume –

    c. Mass –

    d. Density –

Dimensional Analysis

Kids	Have	Dirty	Mouths	Drinking	Chocolate	Milk
i	e	e	Lips	e	e	i
L	c	k	Gums	c	n	l
o	t	a	(Units)	i	t	l
	o				i	i

Kilo	Hecto	Deka	Unit	Deci	Centi	Milli

1 m = _____ mm   5 kg = _____ g

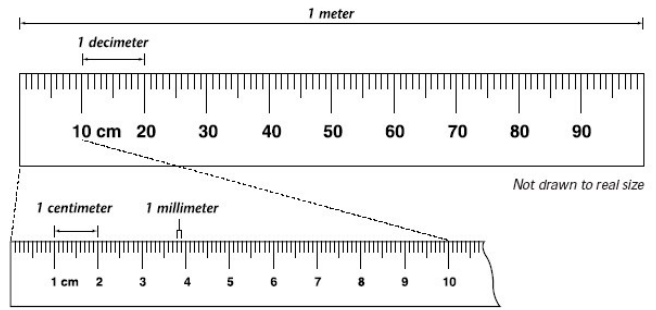1 km = _____ m   100 L = _____ mL

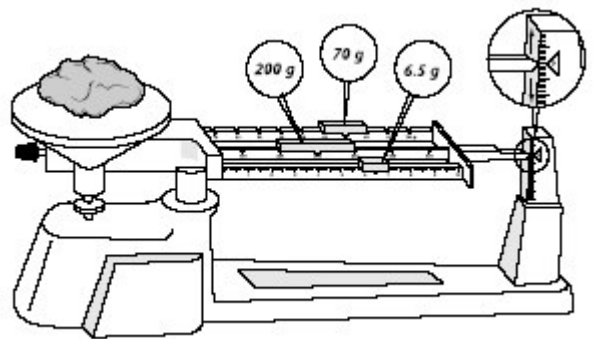1 cm = _____ m   1000 mm = _____ km

Tools of Measurement

a. _____
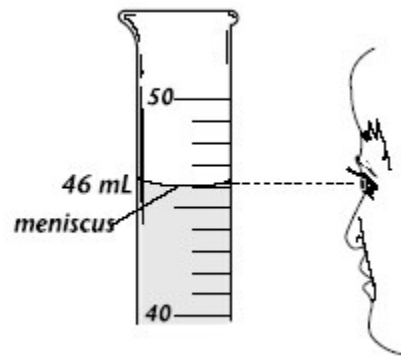
1 meter

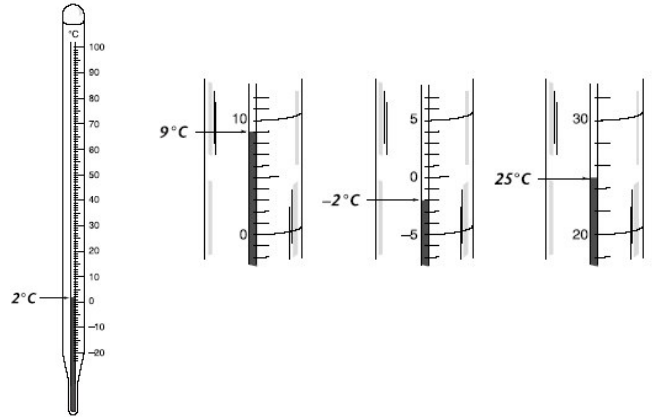1 decimeter

10 cm   20   30   40   50   60   70   80   90

Not drawn to real size

1 centimeter   1 millimeter

1 cm   2   3   4   5   6   7   8   9   10

b. _____

200 g   70 g   6.5 g

c. _____

30

20

Measures 1 mL
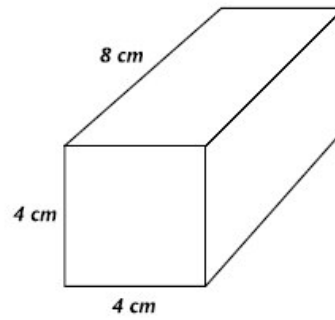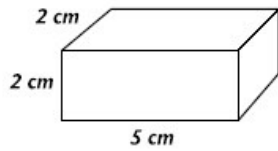
30

20

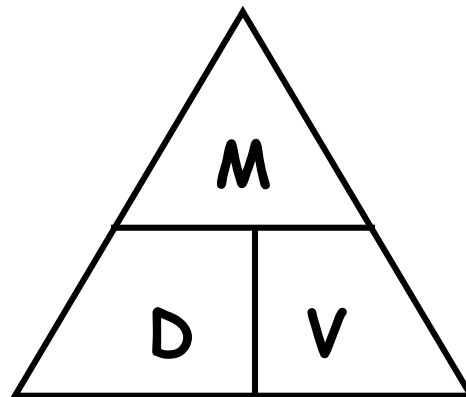Measures 2 mL

50

46 mL
meniscus

40
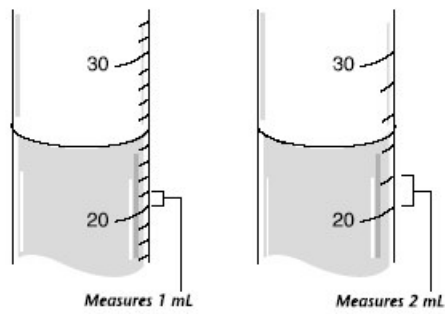
d. _____

Metric Measurement

I.   Volume –

II. Density –

M

D | V

Density Pyramid

Practice Density Problems

Directions: Complete the following problems in the spaces provided.
Please show all work and include the proper units.

Density of H_2O = 1.0 g/mL

1. What is the density of a rock that has a mass of 400g and a volume of 40mL? Will this rock sink or float?

2. What is the density of a block of wood that has a mass of 100g and a volume of 200mL? Will it sink or float?

3. What is the volume of a rock that has a mass of 200g and a density of 2g/mL?

4. What is the density of water with a volume of 20mL and a mass of 20g?

5. What is the density of the water in a swimming pool that has a volume of 1,000,000mL? What is the mass of that water?

6. What object in the beaker below has the greatest density? Least? Explain.
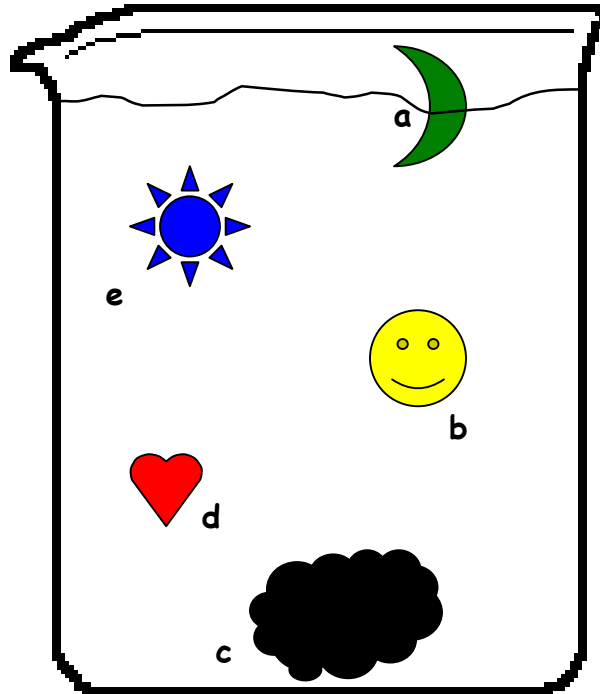
7. List the objects in order from the greatest density to the least.

8. What is the relationship between mass, volume, and density?