DENSITY

1. The density of water is 1 g/cm³. Will the following objects or substances FLOAT or SINK in water, based on their density.

a. Helium (0.18 g/cm³) _____
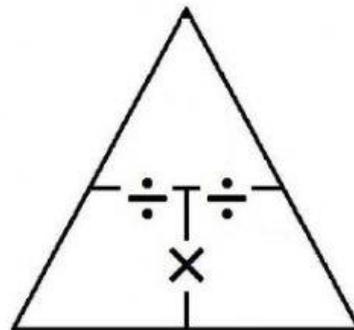
b. Chlorine gas (3.2 g/cm³) _____

c. Paper (0.4 g/cm³) _____

d. Iron (7.9 g/cm³) _____

e. Honey (1.4 g/cm³) _____

f. Flibbles (2.78 g/cm³) _____

g. Desdamonas (0.2g/cm³) _____

Recall that the equation to calculate density is:

Complete the calculation triangle below D, M and V.

Use the equation to the left to help you.

$$density = \frac{mass}{volume}$$

2. Calculate the following.

a. Calculate the DENSITY of a ball if its mass is 200g and its volume is 50cm³.

Density = _____ / _____ (equation)

= _____ g / _____ cm³ (values from question)

= _____ g/cm³ (calculated answer)

b. Calculate the DENSITY of a gas if its mass is 0.5 g and its volume is 300cm³.

Density = _____ / _____ (equation, in words)

= _____ g / _____ cm³ (values from question)

= _____ g/cm³ (calculated answer)

c. Calculate the MASS of a cell phone than has a density of 6g/cm³ and a volume of 10 cm³.

Mass = _____ x _____ (equation, in words)

= _____ g /cm³ x _____ cm³ (values from question)

= _____ g (calculated answer)

d. Calculate the VOLUME of a cup if its mass is 75g and its density is 15g/cm³.

Volume = _____ / _____ (equation, in words)

= _____ g / _____ g/cm³ (values from question)

= _____ cm³ (calculated answer)

3. Complete the table using calculations.

	Mass (g)	Volume (cm³)	Density (g/cm³)
i	240	8	
ii		120	2
iii	450		9
iv	5600	70	
v	270		30
vi		350	3

4. Complete the following passage using words from the drop down boxes.

Heating a substance causes its density to _____. Dissolving salts into

water will cause the density of the water to _____. Ice floats on water

because its density is _____ than water. As cools, it _____,

so its _____ increases. Its _____ does not increase. So the

density of ice is _____ than the density of water.