NAME:_____ DATE:_____

DENSITY

1. The density of water is 1 g/cm^3. Will the following objects or substances FLOAT or SINK in water, based on their density.

a. Helium (0.18 g/cm^3) _____

b. Chlorine gas (3.2 g/cm^3) _____

c. Paper (0.4 g/cm^3) _____

d. Iron (7.9 g/cm^3) _____

e. Honey (1.4 g/cm^3) _____

f. Flibbles (2.78 g/cm^3) _____

g. Desdamonas (0.2g/cm^3) _____

Recall that the equation to calculate density is:

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

Complete the calculation triangle below D, M and V.

Use the equation to the left to help you.

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2. Calculate the following.

a. Calculate the DENSITY of a ball if its mass is 200g and its volume is $50cm^3$.

Density = _____ / _____ **(equation)**

= _____ g / _____ cm^3 **(values from question)**

= _____ g/cm^3 **(calculated answer)**

b. Calculate the DENSITY of a gas if its mass is 0.5 g and its volume is $300cm^3$.

Density = _____ / _____ **(equation, in words)**

= _____ g / _____ cm^3 **(values from question)**

= _____ g/cm^3 **(calculated answer)**

c. Calculate the MASS of a cell phone than has a density of $6g/cm^3$ and a volume of 10 cm^3.

Mass = _____ x _____ **(equation, in words)**

= _____ g/cm^3 x _____ cm^3 **(values from question)**

= _____ g **(calculated answer)**

d. Calculate the VOLUME of a cup if its mass is 75g and its density is $15g/cm^3$.

Volume = _____ / _____ **(equation, in words)**

= _____ g / _____ g/cm^3 **(values from question)**

= _____ cm^3 **(calculated answer)**

LIVEWORKSHEETS

3. Complete the table using calculations.

	Mass (g)	Volume (cm^3)	Density (g/cm^3)
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.

LIVEWORKSHEETS