

FLOAT OR SINK?

To calculate the density of a substance, the following equation is used – $\text{MASS} \div \text{VOLUME}$

The density of a substance can be compared to the density of a liquid to determine if the substance will sink or float.

Rule # 1- If the density of the substance is **GREATER/MORE** than the density of the liquid, the object will **SINK**.

Rule#2 – If the density of the substance is **LESS/LOWER** than the density of the liquid, the object will **FLOAT**.

Calculate the density of water if its mass is 100g and its volume is 100cm³. The density of water is _____.

Calculate the density of alcohol if its mass is 80 g and its volume is 100 cm³. The density of alcohol is _____.

Complete the table below using the information above.

If you believe the object will float, type float. If you think it will sink type sink. If it will neither sink nor float, type neutral.

Object	Mass	Volume	Density	Will the object float or sink in water?	Will the object float or sink in alcohol?
	2.4	1.2			
	1.26	1.4			
	1.33	1.9			
	2.5	1.6			
	1.8	3.6			
	2.1	2.1			

B. Complete the table below using the rules learnt above and the density of water.

Object/substance	Density of water (g/cm ³)	Density of object (g/cm ³)	Which has a greater density, the object/substance or water?	Will the object sink or will it float?
aluminium	1	2.7		
cork	1	0.2		
baby oil	1	0.83		
pancake syrup	1	1.37		
corn	1	0.72		