Density & Buoyancy Exam FRIDAY!

What do you think is going to be on the test?

What is density — How compact the matter is in an object.

Equation for Density —

$$\frac{m}{V} = Density$$

Buoyancy — How well an object floats.

ex) density = .65 g/cm³
this object is 65% submerged.

Ballast —
Additional MASS used to stabilize a vessel.

Density Units —
g/mL   g/cm³

Mission 1

Review Archimedes Principles

SINK – Volume of OBJ is equal to the Volume of the displaced H_2O.

FLOATS – The obj mass is equal to the mass of the displaced H_2O.

What is the density of the block?
Show all calculations!

2cm

3cm

5cm

mass of the block = 20g

$$l \times w \times h = Volume$$

$$5cm \times 3cm \times 2cm =$$

$$30cm^3 = V$$

$$\frac{M}{V} = \frac{20g}{30cm^3} = \frac{2g}{3cm^3} =$$

.6666666

$$D = .67g/cm^3$$

0