

### Density Practice

**\*\*Round all answers to the nearest hundredth! Make sure to include a leading 0 if necessary.**  
For example an answer of .5 should be recorded as 0.50

**Remember:**       $d=m/v$        $d(\text{water})=1\text{g/ml}$        $1\text{ ml} = 1\text{ cm}^3$

1. Calculate the density of a block with a mass of 23g and a volume of 56cm<sup>3</sup>.

This block would \_\_\_\_\_ in water.

2. Calculate the mass of a rock with a density of 3.4g/ml and a volume of 89.5ml.

This rock would \_\_\_\_\_ if water.

3. Calculate the volume of a sample with a mass of 4.3g and a density of 0.34g/ml.

4. Four liquids have been poured into a glass column and have now separated.

- a. Where will the most dense be located?
- b. Where will the least dense be located?



5. In the example above if the 2nd lowest (blue) liquid is water, what can you tell me about the density of the orange liquid?

6. What mass of lead would have a volume of 2.55cm<sup>3</sup>?

7. What volume (cm<sup>3</sup>) of titanium would have a mass of 786g?

8. 45g of what substance would take up 5.06cm<sup>3</sup> of space?

9. Calculate the density of a sample of hydrogen with a volume of 7832ml and a mass of 671g.