Density Worksheet

Name_____
Class Hour_____

1. Define mass?

2. Define volume?

3. Define density and show the formula for calculating density.

4. Why does changing the shape of an object have no effect on the density of that object?

5. Aluminum is used to make airplanes. Cast iron is used to make weightlifting equipment. Explain why the densities of these metals make them useful for these purposes?

6. What is the density of water? Remember for water $1g=1ml=1cm^3$

7. Why does an air bubble rise to the surface of a glass of water?

8. Calculate the densities of the following objects. **Remember to place units after each number.**

Object A length = 6cm width = 3cm height = 1cm mass = 36g

volume = _____ density = _____

Object B length = 10cm width = 5cm height = 2cm mass = 300g

volume = _____ density = _____

Object C Use the water displacement method to determine the density of object C (silly putty).
initial water level in graduated cylinder = 25ml
final water level after placing silly putty into graduated cylinder = 29ml
mass of silly putty=8g

volume = _____ density = _____

9. Which of the following materials will float on water (density 1 g/ml)?

air =	.001 g/cm^3
corn oil =	.93 g/cm^3
glycerine =	1.26 g/cm^3
corn syrup =	1.38 g/cm^3
wood =	.85 g/cm^3
steel =	7.81 g/cm^3
rubber =	1.34 g/cm^3
ice =	.92 g/cm^3
water =	1.00 g/cm^3

10. Assuming the materials don't mix, show how the materials would "stack up" in a graduated cylinder.