SCIENCE 7 – DENSITY CALCULATIONS WORKSHEET

NAME:

1) A student measures the mass of an 8 cm3 block of brown sugar to be 12.9 g. What is the density of the brown sugar?

2) A chef fills a 50 mL container with 43.5 g of cooking oil. What is the density of the oil?

3) Calculate the mass of a liquid with a density of 2.5 g/mL and a volume of 15 mL.

4) Calculate the volume of a liquid with a density of 5.45 g/mL and a mass of 65 g.

5) A machine shop worker records the mass of an aluminum cube as 176 g. If one side of the cube measures 4 cm, what is the density of the aluminum?

6) A teacher performing a demonstration finds that a piece of cork displaces 23.5 mL of water. The piece of cork has a mass of 5.7 g. What is the density of the cork?

7) A carver begins work on the following block of granite ( 20 cm long by 5 cm wide by 10 cm tall) that weighs 2700 g. What is the density of the granite?



8) A piece of PVC plumbing pipe displaces 60 mL when placed into a container of water. If the pipe has a mass of 78 g, what is the density of PVC?

9) A solid magnesium flare has a mass of 1300 g and a volume of 743 cm3 . What is the density of the magnesium? 20 cm 10 cm 5 cm

10) A graduated cylinder has a mass of 50 g when empty. When 30 mL of water is added, the graduated cylinder has a mass of 120 g. If a rock is added to the graduated cylinder, the water level rises to 75 mL and the total mass is now 250 g. What is the density of the rock?

