

CHE 101 - Homework - Ch 3h
Density Problems

Score: ____/20

Name: _____

Date: _____

[20 pt] 1. Answer each of the following questions. ALL answers should contain the proper number of Significant Figures and the proper Units. Show work to receive full credit.

(a) The density of Mercury (Hg) is 13.55 g/mL. What is the mass of Mercury 1(a) _____
(in grams) if you have a 500.0 mL beaker full of Mercury?

(b) What is the volume (in mL) of a silver bar (Ag) weighing 2.5 kg? 1(b) _____

(c) What is the mass (in lbs) of 250 mL of lead? 1(c) _____

(d) What is the identity of an unknown metal that weighs 100.0 grams if it 1(d) _____
displaces 59.0 mL of water. What is the identity of the metal. Explain.

(e) You place a gold necklace weighing 125.0 grams in a graduated cylinder and 1(e) _____
the volume increases from 50.45 mL to 59.25 mL. Is the necklace real or
fake? Explain.