More Density Graph Questions

1. A student measured the masses of some aluminum and copper cylinders of different volumes. The information is displayed below.

<u>Aluminum</u>

mL	mass (g)
4.38	31.71
5.07	33.58
5.75	35.44
6.08	36.28
6.38	37.12

Copper

mL	mass (g)
4.21	31.54
4.63	34.81
5.00	38.07
6.07	47.20
6.68	52.23
7.38	58.12
8.17	64.57
9.30	73.56

a) Graph this data on one graph.

b) Calculate the density of each metal using the graph.

c) Which sample is more dense?

- 2. Consider the following graph:
 - a) By looking at the graph, which sample was the least dense?
 - b) Calculate the density of each sample.
 - c) What mass of salt water had a volume of 55 mL?
 - d) What volume of alcohol had a mass of 20 g?
 - e) If a solid with a density of 0.92 g/mL was placed in a beaker containing all three of these liquids, where would it be situated?





b) Aluminum: 2.7 g/mL; Copper: 8.2 g/mL c) copper

2.a) alcohol b) alcohol: 0.86 g/mL; water: 1.01 g/mL; salt water: 1.06 g/mL c) 59 g

d) 25 mL

e) floating on the water at the bottom of the alcohol layer

<u>Mass Versus Volume</u>