

Name _____

Period _____

Density Problems

Solve the following density problems. You must show all of your work.

The purpose of this assignment is to show mastery in the use of significant figures, units, and algebraic techniques for solving problems.

1) A liquid was massed several times and found to have a mass of 25.00123 g. The samples volume was 12.55 mL's. What is the density of this liquid?

2) A solid object is 75.5 g in mass and has a volume of 13.25 cm³. What is its density?

3) What mass of silver has a volume of 105.0 cm³? The density of silver is 10.50 g/cm³.

4) The density of silver is 10.50 g/ cm³. What volume of it will have a mass of 375.12 g?

5) What is the mass of 975 mL of mercury? Its density is 13.5 g/mL.

6) Your lab partner tells you that he used the electronic balance and found the mass of a sample of mercury was 500 grams. What is the volume of this sample of mercury? Its density is 13.5 g/mL

7) A rectangular block has sides 5.0 cm, 7.50 cm and 20.0 cm. What is its volume?

8) The block in the problem above has a mass of 5.0 g. What is the density of the block?

9) A sheet of gold foil has a mass of 0.35g. Gold has a density of 19.32 g/cm³. What is the volume of the gold foil?

10) The foil in the problem above measures 20.00 cm by 25.00 cm. What is its area?

11) What is the thickness of the foil discussed in problems 9 and 10?