Density Problems
Chemistry

Name: _____

Date: _____ Hour: _____

1. What is the formula for density? _____

2. What are possible SI units for volume? _____

3. What are possible SI units for mass ? _____

NOTE: To receive credit on questions 4 - 10, you must show your work
Yes, your answers must have the correct number of significant figures

4. Calculate the density of mercury if 100.0 g of mercury occupy a volume of 7.36 cm^3.

D = _____

m = _____

V = _____

5. A student needs 15.0 g of ethyl alcohol for an experiment. If the density of the alcohol is 0.789 g/mL, how many milliliters of alcohol are needed?

D = _____

m = _____

V = _____

6. A sample of carbon tetrachloride, a liquid once used in dry cleaning, has a mass of 39.75 g and a volume of 25.0 mL. What is its density?

D = _____

m = _____

V = _____

7. The density of platinum is 23.4 g/cm^3. Calculate the mass of 75.0 cm^3 of platinum.

D = _____

m = _____

V = _____

8. The density of magnesium is 1.74 g/cm^3. What is the volume of 275 g of this metal?

D = _____

m = _____

V = _____

9. A cube of plastic 1.5 cm on each side has a mass of 1.9 g. What is its density?

D = _____

m = _____

V = _____

10. An experiment required 15.0 g of cyclohexane, whose density is 0.7781 g/mL. What volume of cyclohexane should have been used?

D = _____

m = _____

V = _____