Density Problems Practice

1. What is the density of 180 grams of methanol whose volume is 600 cm^3?

2. What is the density of a rock whose mass is 28.6 grams and a volume of 15 ml?

3. What is the density of a piece of wood that has a mass of 25 grams and a volume of 29.4 cm^3?

4. What is the density of 450 grams of gas that has a volume of 680 ml?

5. What is the density of 244 grams of aluminum that has a volume of 90 ml?

6. What is the density of an object with a mass of 1.2 grams and a volume of 1.1cm^3?

7. What is the density of a substance with a mass of 61.9grams and a volume of 5.46cm^3?

8. What is the density of a nickel with a mass of 1.02g and a volume of 1.35cm^3?

9. What is the density of a substance that has a mass of 54.2g and a volume of 3.06cm^3?

10. What is the density of a sample if its mass is 44.3g and its volume is 22.1cm^3?
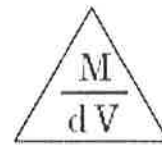
Density Calculations Worksheet I

$$\triangle \frac{M}{d\ V}$$

density = $\dfrac{\text{mass}}{\text{volume}}$	UNITS OF DENSITY solids (g/cm^3) liquids (g/mL)

1. Find the unknown quantity:

a) d = 3 g/mL
    V = 100 mL
    M = ?
	b) d = ?
	    V = 950 mL
	    M = 95 g
		c) d = 0.5 g/cm^3
		    V = ?
		    M = 20 g

2. Find the unknown quantity

a) d = 24 g/mL
    V =   1200 mL
    M = ?
	b) d = ?
	    V = 100 mL
	    M = 1500 g
		c) d =
		    V = 520 mL
		    M = 0.5 g

WORD PROBLEMS

1. A block of aluminum occupies a volume of 15.0 mL and weighs 40.5 g. What is its density?

2. Mercury metal is poured into a graduated cylinder that holds exactly 22.5 mL. The mercury used to fill the cylinder weighs 306.0 g. From this information, calculate the density of mercury.