

Density Worksheet

Name: _____

Period : _____

The formula for finding density is: _____, where

D is _____,

m is the _____, usually in grams

and V is the _____, usually in cubic centimeters (cm^3) or milliliters (mL).

Use this equation to solve the following problems. (Remember: $1 \text{ cm}^3 = 1 \text{ mL}$)

1. What is gold's density if 2 cm^3 of gold has a mass of 38.6 g?

Density = _____

2. What is lead's density if 10 cm^3 of lead has a mass of 113 g?

Density = _____

3. What would be the density of platinum of 5 cm^3 that has a mass of 107g?

Density = _____

4. What is the density of aluminum if the mass is 13.5g and it takes up 5 cm^3 of space?

Density = _____

Use your knowledge of the density formula to complete the following table:

Material	Mass (g)	Volume (mL or cm^3)	Density (g/mL or g/cm^3)
Water @ 4°C	1	1	1 g/mL
Iron	7.8	1	
Gasoline	0.70	1	
Copper	18	2	

5. Would any of the items in the table float on water? How do you know?

Density Homework

Name: _____

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Use the density equation to solve the following problems.

1. What is magnesium's density if 2 cm³ of magnesium has a mass of 3.4 g?

Density = _____

2. What is carbon's density if 8 cm³ of carbon has a mass of 18 g?

Density = _____

3. What would be the density of Neodymium? The sample you measure has a mass of 35g and a volume of 5 cm³?

Density = _____

4. Find the density of a piece of plutonium that is 20 cm³ and is 400g.

Density = _____

Use your knowledge of the density formula to complete the following table:

Material	Mass (g)	Volume (mL or cc)	Density (g/mL or g/cm ³)
Water @ 4°C	1	1	1 g/mL
Milk	103	100	
Palladium	36	3	
Ice @ 0°C	90	100	

5. Would any of the items in the table sink in water? How do you know?

BONUS What would happen to the density of an object if its mass stayed the same but the volume increased?
