

# Density Practice Problems

Name: \_\_\_\_\_

The density of common substances can be found in the table. REMEMBER  $D = M/V$  ....

Substance	Density (gm/cu.cm)
Air	0.0013
Wood (oak)	0.85
Water	1.00
Ice	0.93
Aluminum	2.7
Lead	11.3
Gold	19.3
Ethanol	0.94
Methanol	0.79

Block A:

Mass = 80.1 grams

Volume = 29.7 cm<sup>3</sup>

Block B:

Mass = 25.4 grams

Volume = 29.8 cm<sup>3</sup>

1. What is the density of Block A? \_\_\_\_\_
2. What substance is Block A? \_\_\_\_\_
3. What is the density of Block B? \_\_\_\_\_
4. Would block B float in water? \_\_\_\_\_
5. Which substance on the table would float on Ethanol?

GROUP A	Mass	Volume	Density
Glass	27.5 g	10.5 cm <sup>3</sup>	2.60 g/cm <sup>3</sup>
Iron	38.2 g	4.9 cm <sup>3</sup>	7.80 g/cm <sup>3</sup>
Wood	28.9 g	42.5 cm <sup>3</sup>	0.68 g/cm <sup>3</sup>

GROUP B	Mass	Volume	Density
Glass	55.0 g	21.0 cm <sup>3</sup>	2.60 g/cm <sup>3</sup>
Iron	76.4 g	9.8 cm <sup>3</sup>	? g/cm <sup>3</sup>
Wood	57.8 g	85.0 cm <sup>3</sup>	0.68 g/cm <sup>3</sup>

6. What density would you predict for Group B's Iron sample? Why?

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7. If you were to break a wooden ruler in half, what would the density of each half of the ruler be? Explain.

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