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## Density

**Density = Mass / Volume**

A metal ring has a mass of 96.5 g and a volume of 5.00 cm<sup>3</sup>. Determine the density of the ring and the identity of the metal.

$$\text{Density} = 96.5 \text{ g} / 5.00 \text{ cm}^3 = 19.3 \text{ g/cm}^3$$

The ring is made of gold.

### Density Data Table

Substance	Density (g/cm <sup>3</sup> )	Substance	Density (g/cm <sup>3</sup> )
H <sub>2</sub>	0.0000899	H <sub>2</sub> O (s)	0.917
He	0.000179	H <sub>2</sub> O (l) (4 °C)	1.00
N <sub>2</sub>	0.00125	H <sub>2</sub> O (l) (100 °C)	0.958
Air	0.00129	H <sub>2</sub> O (g) (100 °C)	0.000597
CO <sub>2</sub>	0.00198	Gasoline	0.670
Si	2.33	Ethanol	0.789
Al	2.70	Kerosene	0.810
Cu	8.89	Honey	1.42
Ag	10.5	Sugar	1.59
Pb	11.3	Table Salt	2.17
Hg	13.6	Blood (37 °C)	1.05
Au	19.3	Bone	1.90

Densities are measured at 0 °C and 1 atm, unless otherwise noted.