

$$V = 12\text{ cm} \cdot 6\text{ cm} \cdot 10\text{ cm} = 720\text{ cm}^3$$

$$M = 415\text{ g}$$

$$D = ?$$

$$D = \frac{M}{V}$$

$$= \frac{415\text{ g}}{720\text{ cm}^3} = \boxed{.58\text{ g/cm}^3}$$

$$D = 1.9 \text{ g/cm}^3$$

$$M = 33.3 \text{ g}$$

$$V = ?$$

$$V = \frac{m}{D}$$

$$= \frac{33.3 \text{ g}}{1.9 \text{ g/cm}^3}$$

17.5 mL



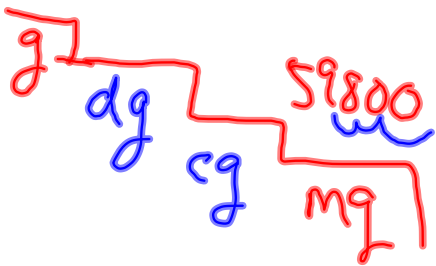
$$= 17.5 \text{ cm}^3$$

$$M = 59,800 \text{ mg} \Rightarrow 59.8 \text{ g}$$

$$D = ?$$

$$V = 2.08 \text{ cm}^3$$

$$D = \frac{m}{V} = \frac{59.8 \text{ g}}{2.08 \text{ cm}^3} = \boxed{28.75 \text{ g/cm}^3}$$



$$M = ?$$

$$D = 6.89 \text{ g/cm}^3$$

$$V = 34.0 \text{ cm}^3$$

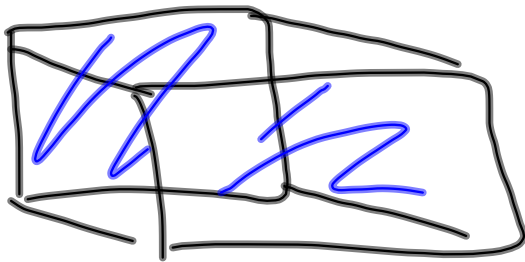
$$M = D \cdot V$$

$$= 6.89 \text{ g/cm}^3 \cdot 34 \text{ cm}^3$$

$$= \underline{234.26 \text{ g}}$$

.234

kg



$$V = 208.2 \text{ L}$$

$$D = 1.03 \text{ g/cm}^3$$

$$M =$$

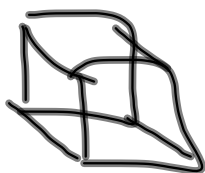
$$208.2 \text{ L} \Rightarrow 208200 \text{ mL} \Rightarrow 208200 \text{ cm}^3$$

$$M = D \cdot V$$

$$1.03 \text{ g/cm}^3 \cdot 208200 \text{ cm}^3 =$$

$$214,000 \text{ g}$$

$$\sim 214 \text{ kg}$$



\*  $D_{\text{pure gold}} = 19.3 \text{ g/cm}^3$

No it is  
not real  
gold.

$$m = 40 \text{ g}$$

$$V = 2 \text{ cm} \cdot 2 \text{ cm} \cdot 2 \text{ cm} \\ = 8 \text{ cm}^3$$

$$D_{\text{cube}} = \frac{m}{V} \\ = \frac{40 \text{ g}}{8 \text{ cm}^3} \\ = \boxed{5 \text{ g/cm}^3}$$