Name _____

Mystery Metals and Hidden Materials Answer Key

1. $D = \frac{27}{10} = 2.7\ \text{g/cm}^3$ → **Aluminum**
2. $D = \frac{243}{27} = 9.0\ \text{g/cm}^3$ → **Copper**
3. $D = \frac{355}{50} = 7.1\ \text{g/cm}^3$ → **Zinc**
4. $D = \frac{38.6}{3.68} = 10.5\ \text{g/cm}^3$ → **Silver** (not gold)
5. $D = \frac{35.6}{4.0} = 8.9\ \text{g/cm}^3$ → **Copper**
6. $D = \frac{192}{24} = 8.0\ \text{g/cm}^3$ → **Iron**
7. 7.2 g/cm³ → between **Zinc (7.1)** and **Iron (7.9)**
8. **8.9 g/cm³** for both → density is constant for a given material
9. Volume = 25 cm³ → $D = \frac{227}{25} = 9.1\ \text{g/cm}^3$ → **Copper**
10. Volume = 4.9 cm³ → $D = \frac{96}{4.9} = 19.6\ \text{g/cm}^3$ → **Gold**