

- 1- Which of the following is an extensive property of matter?
 A) density in
 B) temperature in
 C) color in
 ✓ **D) length + volume + mass**
- 2- How many L are in 2050 mL? $1000 \text{ mL} = 1 \text{ L}$
 $2050 \text{ mL} \times \frac{1 \text{ L}}{1000 \text{ mL}}$
 ✓ **A) 2.050 L**
 B) 20.50
 C) 205.0
 D) 0.205
 $1 \text{ L} = 1000 \text{ mL}$
 $2 \text{ L} = 2050 \text{ mL}$
 + show
- 3- What is the scientific form for 3,500,000,000?
 3.5×10^9
 ✓ **B) 3.5×10^9**
 C) 3.5×10^8
 D) 3.50×10^9
- 4- Express the answer to the following calculations in scientific notation.
 $3 \times 10^4 + 2.5 \times 10^5 =$
 $0.3 \times 10^5 + 2.5 \times 10^5 =$
 2.8×10^5
 ✓ **B) 2.8×10^5**
 C) 3.25×10^5
 D) 5.5×10^9
- 5- How many significant figures are in 0.0510 km?
 ✓ **A) 3**
 B) 4
 C) 2
 D) 5

6- Convert 35 °C to degrees Fahrenheit:

- A) 85 °F
- B) 65 °F
- C) 105 °F
- D) 95 °F

$$F^{\circ} = 1.8 \times C + 32$$
$$1.8 \times 35 + 32$$

7- A metal has volume 1.48 cm³ and a mass of 6.67 g. Calculate the density of the metal in g/cm³.

- A) 5.85
- B) 4.50 g/cm³
- C) 0.585
- D) 0.005

$$d = \frac{m}{V} = \frac{6.67 \text{ g}}{1.48 \text{ cm}^3}$$

8- How many protons, neutrons, and electrons are there in ⁷⁸₃₄Se: P = 34, N = 44, e = 34

- A) 34 protons, 34 neutrons, and 44 electrons.
- B) 44 protons, 34 neutrons, and 78 electrons.
- C) 34 protons, 44 neutrons, and 34 electrons.
- D) 78 protons, 34 neutrons, and 44 electrons.

9- Choose the particle that carries a positive charge:

- A) Neutron -
- B) Electron -
- C) Alpha +
- D) Beta -

10- The number of neutrons in ⁶⁵₃₀Zn²⁺ is: P = 30, N = 35, e = 28

- A) 30
- B) 35
- C) 33
- D) 37

11- Which of the following is **not** an empirical formula?

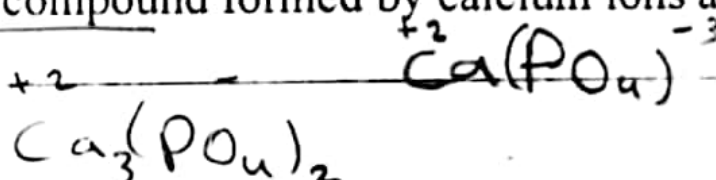
- A) H₂O
- B) CO₂
- C) NH₃
- D) C₂H₆ → CH₃

12- Two isotopes of an element differ in their:

- A) numbers of protons.
- B) numbers of neutrons.
- C) numbers of electrons.
- D) element symbol.

13- What is the formula for the ionic compound formed by calcium ions and phosphate ions?

- A) CaPO_4
- B) Ca_3PO_4
- C) $\text{Ca}_3(\text{PO}_4)_2$
- D) $\text{Ca}(\text{PO}_4)_3$



14- The correct stock system name for CoCl_3 is:

- A) cobalt(III) chloride ✓
- B) cobalt trichloride
- C) cobalt chloride
- D) cobalt(III) trichloride

15- The oxoanion of HClO_4 is:

- A) Perchlorate
- B) Chlorate
- C) Perchlorite
- D) Hypochlorite

