

Part II Short Answer

1. (10 Points) Writing formulas and naming compounds. Complete the following table.

Cation	Anion	Formula	Name
Mg ²⁺	NO ₃ ⁻		
		(NH ₄) ₃ PO ₄	
			Copper (I) Sulfide
N ⁴⁺			Nitrogen (IV) Oxide

2. (5 Points) Correctly draw the Lewis Dot Structures in each box.

Na	O	C	CO	Na ₂ O

3. (5 Points) The following questions test your ability to use significant figures.

How many significant figures are in each of the following numbers?

- a) 3.650 _____ b) 0.0606 _____ c) 5.40×10^4 _____

Express your answer using the correct number of significant figures.

- d) $45.9 + 1.256 =$ _____ e) $54.73 \times .31794 =$ _____

4. (5 Points) The final question is based on the experimental determination of an element's density.

a) To determine the volume you place the element in a graduated cylinder containing water. The picture to the right shows the volume of water before and after the element was added. Record the volume of the element.

_____ mL

b) Determine the density of the element using a mass of 38.9 grams.
(show the formula, substitution, and the answer with units).

c) Using your reference tables select the element which best matches your density.

