

Quiz 2.2 – Periodic Table

Name: Key

Problem 1

Given the masses and abundances of isotopes listed below, what is the atomic weight of Gallium?

	^{69}Ga	^{71}Ga
Mass (amu)	68.925581	70.924705
Abundance (%)	60.108%	39.892%

$$\text{A.W.} = 68.925581 \text{ AMU} \cdot \frac{60.108\%}{100\%} + 70.924705 \text{ AMU} \cdot \frac{39.892\%}{100\%} = 69.723 \text{ AMU}$$

Problem 2

Classify each of the following elements as a *metal*, *non-metal*, or *metalloid*

- Carbon *nonmetal - main group*
- Samarium *metal - inner transition metal*
- Aluminum *metal - main group*
- Arsenic *metalloid - main group*
- Sulfur *nonmetal - main group*
- Antimony *metalloid - main group*
- Potassium *metal - main group*

Problem 3

Give the name of the family for each of the following elements

- Chlorine *Halogens*
- Lithium *Alkali metals*
- Neon *Noble gases*
- Sulfur *Chalcogens*
- Magnesium *Alkaline Earth metals*

} *Main group*

Problem 4

For each of the elements above, also classify them as being in the *main group*, *transition metals*, or *inner transition metals*