Homework 1.

- 1. Name the following compounds:
- a. MgF_2
- b. GaN
- $c. \ IF_3$
- $d. \ CO_2$

2. Fill in the blanks

| Isotope | Protons | Neutrons | Electrons | Atomic Mass |
|---------------------------------|---------|----------|-----------|-------------|
| $^{10}_{5}B$ | | | | |
| ?Se | | | | 79 |
| ³⁵ ?Cl ¹⁻ | | 18 | | |

- 3. In terms of chemical reactivity, Arsenic (As) would be most similar to:
- a.) Se (selenium) c.) N (nitrogen)
- b.) Ge (germanium) d.) Hg (mercury)

4. The energy of a single photon is calculated to be 1.258×10^{-19} J. What is the frequency of this photon? What is the wavelength? Give correct units.