1. Magnesium appears in the periodic table in this format:

a) For $^{24}\text{Mg}^{2+}$ how many protons, neutrons, and electrons are there?

b) What is the mass number for $^{25}\text{Mg}^{2+}$?

What is the atomic number for $^{24}\text{Mg}^{2+}$?

c) What does the mass number represent?

What does the atomic number represent?

d) How can you tell the difference between an atom and an ion based on knowing the number of protons, neutrons, and electrons in each? Be brief.

atom: $\# \text{ of } p = \# \text{ of } e^-$

ion: $\# \text{ of } p \neq \# \text{ of } e^-$