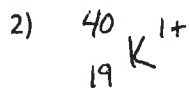
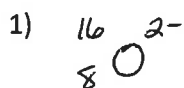


Chem Homework:
Atomic Models and Isotopic Symbols

Name _____
 Block _____ Date _____

Draw the **Bohr Model** for the elements listed based upon the isotopic symbol provided. Determine how many valence and core electrons each model has below your diagram.



Valence e- _____

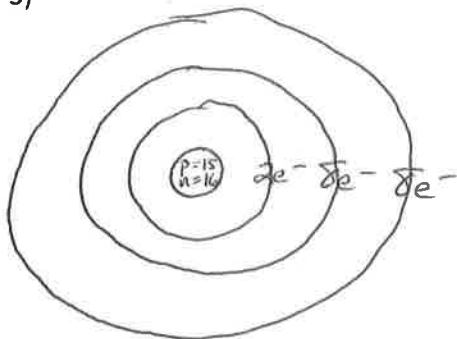
Valence e- _____

Core e- _____

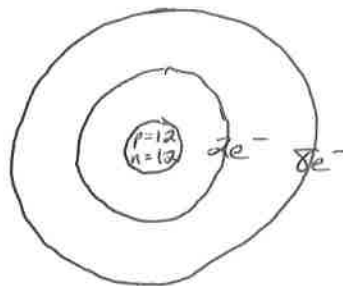
Core e- _____

Write the isotopic symbol for the elements diagramed below.

3)



4)



Isotopic Symbol _____

Isotopic Symbol _____

5) Rewrite the isotopic symbol you figured out for question #4: _____

How would this symbol change if the following changes to the atom occur?

a. You add an electron to the original atom.

New isotopic symbol = _____

b. You remove a proton from the original atom.

New isotopic symbol = _____

c. You add two neutrons to the original atom.

New isotopic symbol = _____

6) Redraw a short hand Bohr Model of the atom in question #2 below.

What is the nuclear charge of this atom? _____

What is the effective nuclear charge felt by an electron in the 1st energy level? _____

What is the effective nuclear charge felt by an electron in the 2nd energy level? _____

What is the effective nuclear charge felt by an electron in the valence energy level? _____