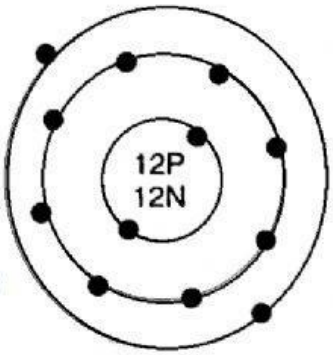
Types of Bonds

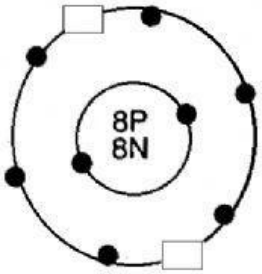
Look at the Bohr Models below, move the eletrons from one model to the other as they would if these two atoms formed a bond.

A.



After moving the electrons.
How many Protons ____+
How many Electrons ____-
What is the difference ____
(include sign)

B.



After moving the electrons.
How many Protons ____+
How many Electrons ____-
What is the difference ____

1. If atom A loses electrons to atom B,
   a. how many electrons will atom A lose? _____
   b. how many electrons will atom B gain? _____
   c. what will be the oxidation number of atom A? _____ (include sign)
   d. what will be the oxidation number of atom B? _____ (include sign)
   e. what will be the total charge of the compound formed? Number format.

      _____

   f. what type of bond will form?

      _____

2. Explain why an element's oxidation number is related to the group on the periodic table to which it belongs.

   For Families 1, 2, 3, and 4 the oxidation number is _____

   For Families 5,6,7, and 8 the oxidation number is _____

   _____

Directions: *Complete the table comparing ionic compounds and covalent compounds.*

Characteristic	Ionic compounds	Covalent compounds
3. How the compound is formed	electrons are shared electrons are transferred	electrons are shared electrons are transferred
4. Smallest particle	proton, neutron, electron	proton, neutron, electron
5. Usual state at room temperature	Solid, Liquid, Gas	Solid, Liquid, Gas