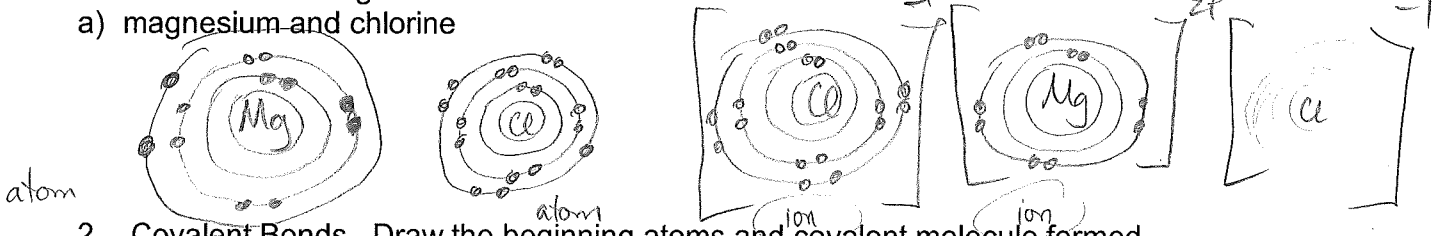
SCIENCE 10 **BOHR MODELS AND LEWIS STRUCTURES** NAME:_____

A. BOHR MODELS

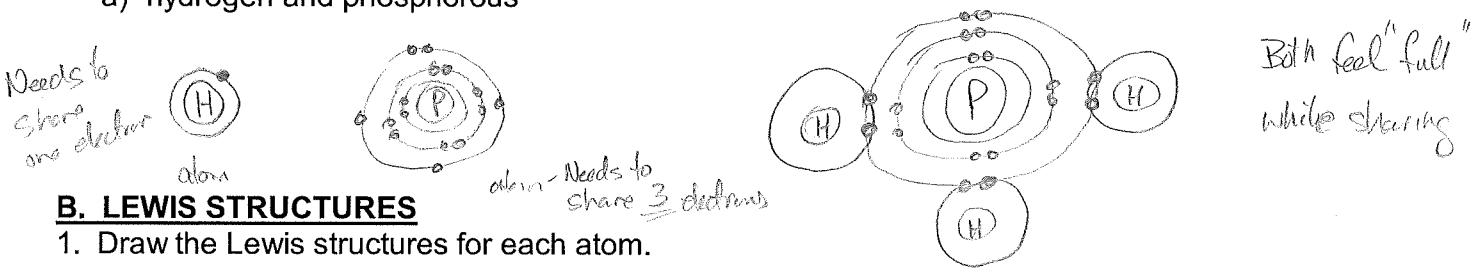
1. Ionic Bonds. Draw the beginning atoms and final compound formed, showing brackets and final ion charges.

a) magnesium and chlorine



2. Covalent Bonds. Draw the beginning atoms and covalent molecule formed.

a) hydrogen and phosphorous



B. LEWIS STRUCTURES

1. Draw the Lewis structures for each atom.

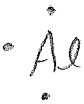
a) Boron

b) Chlorine

c) Neon

d) Oxygen

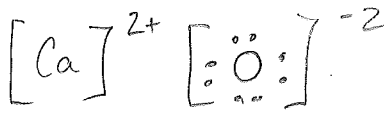
e) Aluminum



f) Carbon

2. Ionic Bonds. Draw the sequence of Lewis diagrams that shows ionic bonding for the following elements when they form ionic compounds. *{You may need to add extra atoms if necessary}*

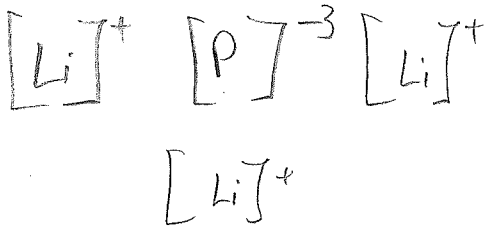
a) calcium and oxygen



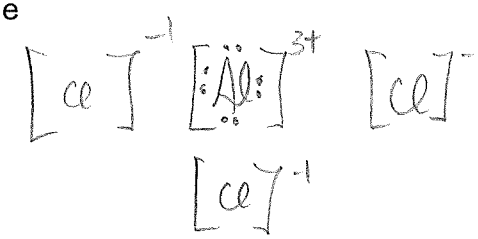
Calcium gave away its two valence electrons to Oxygen. both now stable

b) sodium and fluorine

c) lithium and phosphorous



d) aluminum and chlorine



Each chlorine gave its valence electron to Al. Now aluminum is full with its 3 extra electrons.

3. Covalent Bonds.

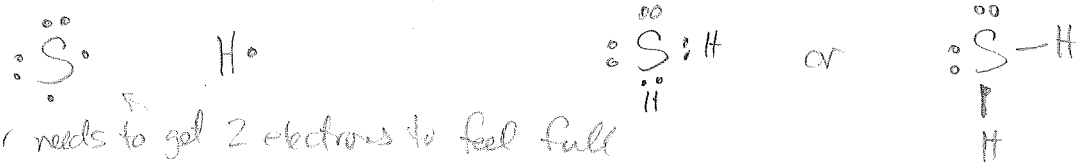
i) Draw the sequence of Lewis diagrams that shows how covalent bonding occurs for the following elements when they form covalent compounds. *{You may need to add extra atoms if necessary*

ii) Indicate any bonding pairs with either dots or dashes.

a) hydrogen and nitrogen

b) hydrogen and carbon

c) sulphur and hydrogen



Sulfur needs to get 2 electrons to feel full

d) a diatomic hydrogen molecule

e) a diatomic chlorine molecule