

Name: _____

Atom Practice Problems

- Find the following for oxygen:
 - Symbol: _____
 - Atomic #: _____
 - Atomic mass: _____
 - Use your answers to #1 to calculate oxygen's:
 - # protons: _____
 - # electrons: _____
 - # neutrons: _____
 - Find the following for zinc:
 - # protons: _____
 - # electrons: _____
 - # neutrons: _____
 - Find the following for radium:
 - # protons: _____
 - # electrons: _____
 - # neutrons: _____
 - How many electrons can be held in the:
 - first orbital? _____
 - second orbital? _____
 - third orbital? _____
 - Will these atoms have one, two, or three electron shells?
 - Hydrogen: _____
 - Fluorine: _____
 - Magnesium: _____
7. Draw the following atoms: (P^+) = proton, (N^0) = neutron, (e^-) = electron
- Helium:
 - Nitrogen
 - Sodium:
 - Chlorine

LEWIS DOT DIAGRAMS

Name _____

Lewis diagrams are a way to indicate the number of valence electrons around an atom.

Na^{\cdot} , $\cdot\ddot{\text{Cl}}\cdot$, $\cdot\ddot{\text{N}}\cdot$
are all examples of
this type of diagram.

Draw Lewis dot diagrams of the following atoms.

1. calcium

6. carbon

2. potassium

7. helium

3. argon

8. oxygen

4. aluminum

9. phosphorus

5. bromine

10. hydrogen

Understanding Lewis dot Structures

1. Draw a diagram of the electron configuration of Lithium:
2. Make the Lewis dot structure by only placing the outer shell of electrons around the symbol for Lithium.
3. Draw the electron configuration of Carbon.
3. Make the Lewis dot structure by only placing the outer shell of electrons around the symbol for carbon. (Try to make as many unpaired electrons as possible)

Draw Lewis dot structures for the Elements listed below. Try to leave as many unpaired electrons as possible.

H								He
Li	Be	B	C	N	O	F		Ne
Na	Mg	Al	Si	P	S	Cl		Ar

Creating ions

Draw the Lewis Dot structure for the following elements. Convert them to Ions by adding or removing electrons in order to make either full or empty outer electron energy levels.

