Dougherty Valley HS Chemistry **Name:**
National Mole Day Celebration **Date:**
Period:

Introduction:

The date, October 23rd, had been designated as National Mole Day, starting at 6:02 AM. In celebration of this special date, you will be given an opportunity to make atomic cookies in class, but first…

Part I

[a] What the heck is a mole anyway? Research and write the definition in this space.

[b] How many particles are in a mole? _____

[c] Why do you think a mole is used to measure small particles like atoms and their components?

Part II

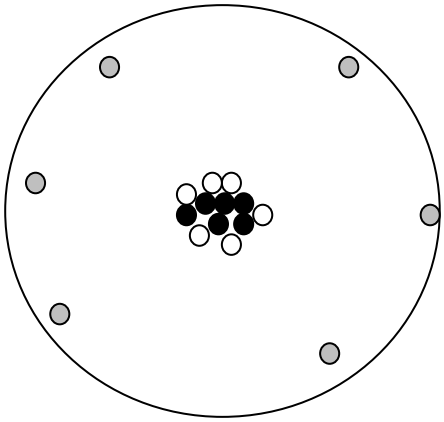
Demonstrate your knowledge of atomic structure by identifying the ion and atom below. Use the key to find the numbers of subatomic particles in each and fill in the spaces. Check this wit your teacher before you proceed.

Identify these particles using this key

Proton = ● **Neutron** = ○ **Electron** = ○

p^+ = _____
n^0 = _____
e- = _____

Mass # =
Atomic # =



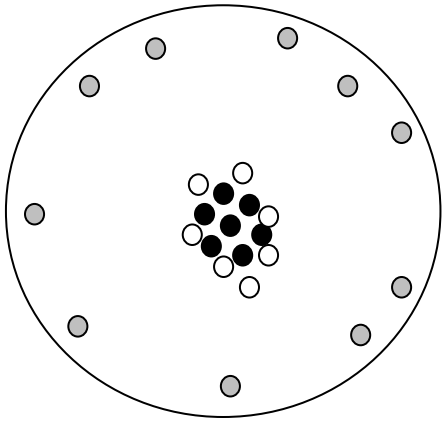
Atom or Ion?

Name of Element:

Charge =

p^+ = _____
n^0 = _____
e- = _____

Mass # =
Atomic # =



Atom or Ion?

Name of Element:

Charge:

Part III

Create your own examples using the materials supplied by your classmates. Do one atom and one ion. Your examples must be for elements below atomic #7. Refer to the list below to determine the correct charge on ions. When directed, check your model with a key before making our "Atomic Cookies." Enjoy!

Ion List

H^{+}, Li^{+}, Be^{2+}, B^{3+}, N^{-3}, O^{-2}, F^{-1}

Atom

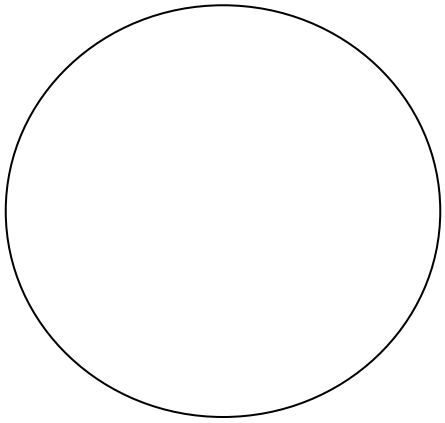
p^{+} = _____

n^{0} = _____

e- = _____

Mass # =

Atomic # =



Name of Element:

Charge:

Ion

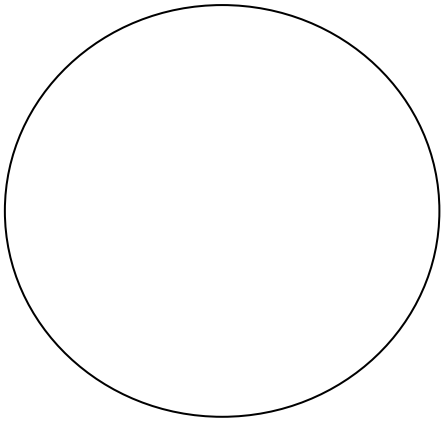
p^{+} = _____

n^{0} = _____

e- = _____

Mass # =

Atomic # =



Name of Element:

Charge: