

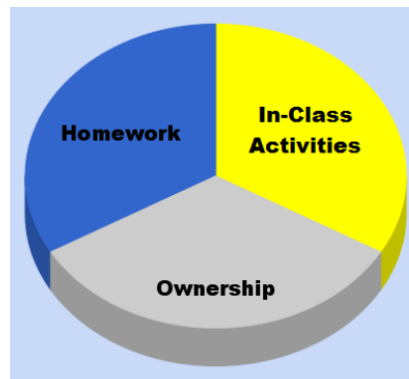
CHEM 121 – Worksheet 24 – Fall 2015

Monday Name: _____

Wednesday Name: _____

Directions: Bring this worksheet to class 100% complete and prepared to show your work on the board when class starts.

1) State the first rule of oxidation numbers in your own words.



2) Determine the charge on the chemicals below:

A) Ba

B) Sr

C) N₂

D) F₂

E) Cr

F) W

G) Pd

H) Bi

I) Xe

J) Al

K) Rb

L) Sg

M) Tc

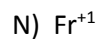
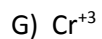
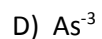
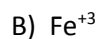
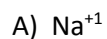
N) Y

O) Rn

3) Determine the oxidation number of the chemicals in #2.

4) State the second rule of oxidation numbers in your own words.

5) Determine the charge on the following chemicals below:



6) Determine the oxidation number of the chemicals in #5, above.

7) State the third rule of oxidation numbers in your own words.

8) Write out the cations from Group I and II, below, with the correct charge.

9) Determine the oxidation numbers of the cations that you wrote out in #8 above.

10) What are the three oxidation states for hydrogen? Write each form of hydrogen out, give an example of it and name it below.

11) What are the three oxidation states for oxygen? Write each form of oxygen out, give an example of it and name it below.

12) State the 6th rule of oxidation numbers in your own words.

13) Give the total oxidation state of the compounds below. Show your work to prove it for each compound. Name each compound.

A) BeCl_2

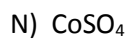
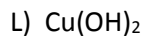
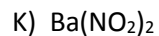
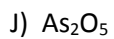
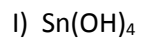
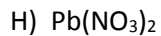
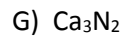
B) $\text{Fe}(\text{OH})_3$

C) KBr

D) H_2SO_4

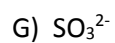
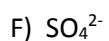
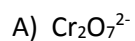
E) H_3PO_4

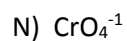
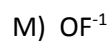
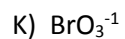
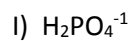
F) Na_3PO_4



14) State the 7th rule of oxidation numbers in your own words.

15) Give the total oxidation state of the ions below. Show your work to prove it for each ion. Name each ion.





16) What is the oxidation state of chlorine in sodium hypochlorite? Write out the formula and prove your result.

17) What is the oxidation state of chlorine in sodium chlorite? Write out the formula and prove your result.

18) What's the oxidation state of chlorine in sodium chlorate? Write out the formula and prove your result.

19) What's the oxidation state of chlorine in sodium perchlorate? Write out the formula and prove your result.

20) What's the oxidation state of the sodium in questions 16-19?