Name_____Per _____

Unit 4 Handout 4 (Honors Chemistry)

Rules for Writing the e- configuration for atoms and drawing the e- configuration.

Using your periodic chart, follow these short cut rules

s and p correspond to the row
d's are 1 behind row
f's are 2 behind row

Whole atom electron configuration practice:

Example**: Fe (26) $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^2\ 3d^6$**

F (9) _____

Si (14)_____

Ni (28) _____

Y (39) _____

Ag(47) _____

Xe (54)_____

Pt (78) _____

Ac (89) _____

Noble gas electron configuration practice (short cut):

Example**: Fe (26) $[Ar]\ 4s^2\ 3d^6$**

S (16) _____ B (5) _____

Po (84) _____ As (33) _____

U (92) _____ Te (52) _____

Mo (42) _____ Mg (12) _____

Last Orbital electron configuration practice:

Example: **Fe(26) $3d^6$**

Ca(20) _____ N(7) _____

Br(35) _____ Xe (54) _____

La (57) _____ Pb(82) _____

Pu(94) _____ Si (14) _____

Number of Valence Electrons:

Example: **Fe(26) 2**

Ca(20) _____ N(7) _____

Br(35) _____ Xe (54) _____

La (57) _____ Pb(82) _____

Pu(94) _____ Si (14) _____

Valence Electron electron configuration practice:

Example: **Fe(26)** **$4s^2$**

Ca(20) _____ N(7) _____ La (57) _____ Pb(82) _____

Br(35) _____ Xe (54) _____ Pu(94) _____ Si (14) _____

Electron Dot Structures

Example: **Fe(26)** Fe

Li(3) Cl(17)

Cu(29) Ge (32)

Tl (81) I(53)

Rn (86) Fr (87)

Name that Element Practice: Example: **$3d^6$** Fe which is Iron

$7s^1$ _____

$4p^5$ _____

$3d^9$ _____

<u>DRAW</u> Whole atom electron configuration practice:

Example**: Fe (26) $1s^2$ $2s^2$ $2p^6$ $3s^2$ $3p^6$ $4s^2$ $3d^6$**

Fe (26)

K (19)

As (33)

Ag(47)

Xe (54)

Eu (63)