

**Orbital WS Two (13.6)**

Name: \_\_\_\_\_

1) Draw out **orbital notation** for the following elements, being sure to follow Hund's rule:

Si

P

S

2) Define the **Aufbau Principle** and state an example of when it is no longer true.

3) Write **noble gas configurations** for the following elements. When done, look at your new PT to see which ones are exceptions to the filling order and put the correct configuration to the right.

Expected configuration

Correct configuration

Co:

Co:

Cr:

Cr:

Se:

Se:

Cu:

Cu:

Pd:

Pd:

Ag:

Ag:

4) Why do electron configurations sometimes break Hund's rule?

5) Write out noble gas configurations for these larger elements. When done check for exceptions!

Am:

Lu:

Rb:

In:

Sg:

W:

Ba:

Ne:

Pb:

Cd:

More on Back!

IONS! Write electron configurations or noble gas configurations for each of these ions. Go back to the last noble gas to start!

Formula:	Name:	# electrons	configuration
$F^{-1}$			
$Na^{+1}$			
$S^{-2}$			
	nitride		
$Mg^{+2}$			
	rubidium ion		
$P^{-3}$			
$Mn^{+2}$			
$Zn^{+2}$			
$Cr^{+6}$ (dangerous!)			