

Noble Gas & Ion Configuration Practice- Accel.

Name: _____ Pd: _____

1. What elements are denoted by the following noble gas configurations:

- a. [Kr] 5s²4d¹⁰5p³ _____ c. [Rn] 7s²5f¹¹ _____ e. [Ar] 4s²3d³ _____
b. [Xe] 6s²4f¹⁴5d⁶ _____ d. [Ne] 3s²3p² _____ f. [He] 2s² _____

2. Write the noble gas configurations for the following elements:

- a. Strontium _____ g. Potassium _____
b. Tin _____ h. Mercury _____
c. Sulfur _____ i. Boron _____
d. Silicon _____ j. Molybdenum _____
e. Palladium _____ k. Cesium _____
f. Gallium _____ l. Iron _____

3. For each of the following elements, state whether it is more likely to gain or lose electrons to form a stable octet and how many electrons will be gained or lost.

Element	Gains or loses electrons?	Number of electrons gained or lost	Charge?	Element	Gains or loses electrons?	Number of electrons gained or lost	Charge?
K	Loses	1	+1	Mg			
Br				Al			
O				I			
Ar				N			

4. Write the electron configurations for the following ions:

- a. Calcium _____
b. S²⁻ _____
c. Al³⁺ _____
d. Nitrogen _____
e. Cu²⁺ _____