Series N°3

Exercise 1 :

-Elements A, B, C, D and E have the following electronic configurations :

A : 1s2 2s2 2p1 B : 1s2 2s2 2p6 3s1

C : 1s2 2s2 2p6 3s2 3p3 D : 1s2 2s2 2p6 3s2 3p5

E : 1s2 2s2 2p6 3s2 3p6 4s2

Which among these will belong to the same group in the periodic table ?

- An element X with Z = 112 has been recently discovered. what is the electronic configuration of the element? To which group and period will it belong?

-What element would be in same period of ^{56}Ba and in same group of ^{13}Al Place this element on your period table.Add to the square the atomic number, the atomic mass and the electron configuration.

Exercise2 :

Fill in the below chart.

element	Electronic configuration	Valence electrons + Orbital diagram	period	group
^{12}Mg				
^{55}Cs				
^{62}Sm				
^{45}Rh				
^{79}Au				
^{34}Se				
^{53}I				
^{31}Ga				

^{42}Mo				

Exercise 3 :

1. Arrange the following elements in order of increasing atomic radius electronegativity and first ionization energy.

^{11}Na, ^{14}Si, and ^{55}Cs

2. In which group of the periodic table is there an atom with a valence shell electron configuration of :

ns^2 $(n-1)d^5$, ns^2 np6, ns^2 (n-1) d^{10}, ns^2 (n-1)d^{10} np^2