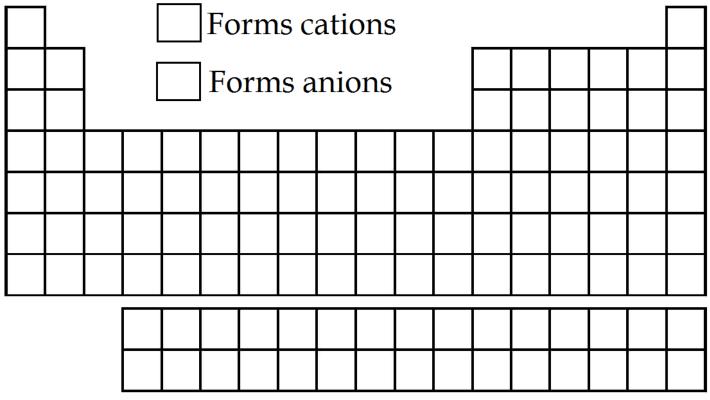
Formation of lons

Elements tend to	or	electrons to fil	I their
outermost energy	levels with	electrons	
This causes an im	ore or less	than	
)		

are atoms that have eit	ther lost or gained	
While atoms are	, ions are	particles.
A loss of electrons results in a	ion or	
(pronounced "cat – eye - on"	').	
A gain of electrons results in a	ion or _	
(pronounced "an – eye - on")).	

Label the 8 main groups with their number of valence electrons, color the groups according to weather they will form cations or anions.



The charge of an ion can be computed by subtracting the _____ from the _____

Chlorine would gain 1 electrons so:

Lewis Structures (Lewis dot diagrams)

1. Using your periodic table, check to see how many valence electrons the atom will have.

- 2. Write the element symbol.
- 3. Starting at the right, draw electrons, or dots, counter-clockwise around the element symbol.
- 4. Add or subtract electrons as needed to notate an ion.



Knowing that the elements in groups 1-2, and 13-18 usually have ion charges of +1,+2,+3,+4, or -3,-2,-1: For the following elements, write a Lewis Dot diagram, the charge number, and whether or not the element is a cation, and anion, or chemically stable.

Element	Lewis Dot Diagram	Common charge Number	Cation, Anion, or Chemically stable?
8			
56			
17			
13			
18			
20			
7			