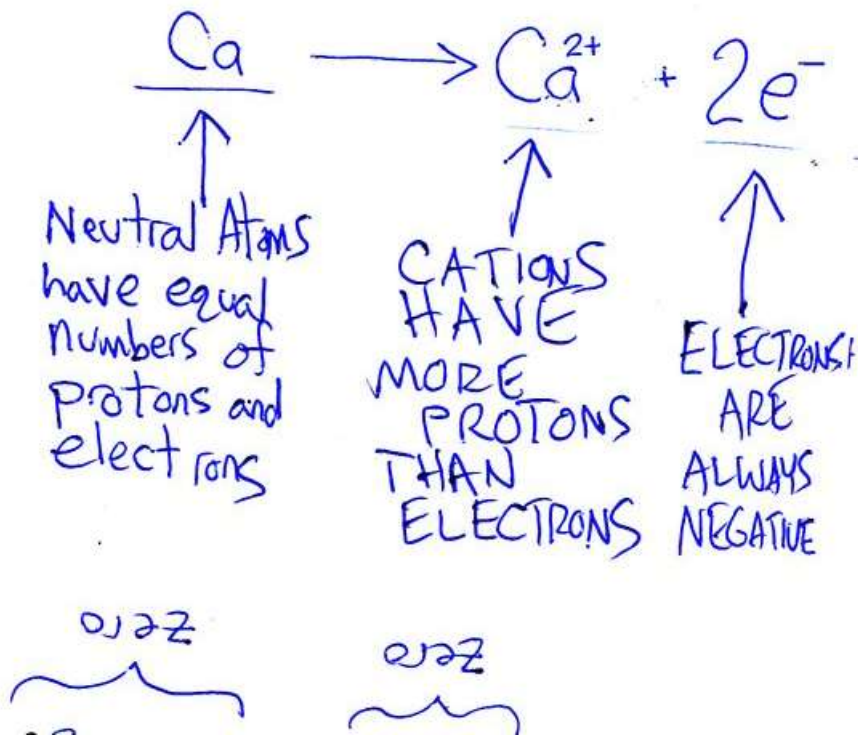


PURPOSE WHAT IS "CONSERVATION OF CHARGE?"

WARMUP "If 300 grams of A AND 100 grams of B react, How MUCH C WILL FORM?"



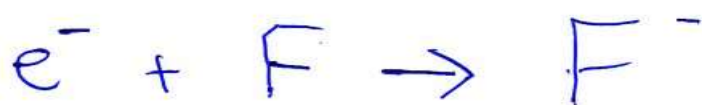
#1) WHEN CALCIUM LOSES ELECTRONS IT LOOKS LIKE THIS:



#2 WHEN YOU FORM IONS  
FROM NEUTRAL ATOMS  
IT'S CALLED IONIZATION

#3 How to show  
ionization

example fluorine becoming negative



example GOLD BECOMING POSITIVE



EXAMPLE:  
CARBON LOSING AN ELECTRON

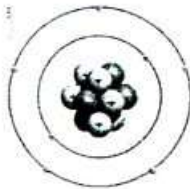


EXAMPLE

Xenon gaining an electron



If you do this right the total charge on the left side of the arrow will equal the total charge on the right side of the arrow. This is the Conservation of Charge law



## Homework:

1. If an atom has 12 protons and 10 neutrons, it has a mass of 22 and it is the element Mg.
2. If an atom has 1 proton and 0 neutrons, and 2 electrons, what is the highLow symbol of the atom?  ${}^1_1\text{H}^-$ .
3. If an atom is helium how many protons does it have? two
4. If an atom has 10 protons what element is it? Neon
5. If the atom's mass number is 18 how many nucleons does it have? 18 (nucleons are protons + neutrons)
6. If an atom has 12 protons and it has 25 nucleons, how many neutrons does it have? 13
7. If an atom has 20 nucleons and has 9 neutrons, how many protons does it have? 11 protons
8. If an atom has 1 proton and 0 neutrons what element is it? Hydrogen
9. If an atom has 22 protons and 20 neutrons, and 20 electrons, write the highLow symbol with charge  ${}^{42}_{22}\text{Ti}^{2+}$
10. If an atom has 8 proton and 11 neutrons what is the mass of the atom? 19
11. If an atom is magnesium how many protons does it have? 12
12. If an atom has 15 protons what element is it? P
13. If an atom mass number is 28 amu's and there are 12 neutrons, what element is it? 16 protons, so it is sulfur
14. If an atom has 6 protons and it has 10 nucleons, how many neutrons does it have? 4 neutrons
15. If an atom has 1 nucleon and has zero neutrons, how many protons does it have? one
16. If an atom has 92 protons, 91 electrons, and 146 neutrons write the symbol, with highLow numbers and charge  ${}^{238}_{92}\text{U}^+$

The charge of

~~11p~~  
~~10n~~  
~~10e~~

the number of protons of

**Boron**

the charge of

11p  
13n  
10e

the mass number of

11p  
13n  
10e

The number of protons in

**Boron**  
5

the atomic number of

**He**  
2

the mass number of

**He**  
5

the charge of

18p  
19n  
18e

the number of protons of

**Helium**

The number of neutrons in

**H**  
1

the number of NUCLEONS (not neutrons) in

1p  
1n  
2e

the atomic number of

3p  
4n  
2e

the mass of

**H**  
1

the number of NUCLEONS (not neutrons) in

**H**  
3

the atomic # of

**Lithium**

the charge of

12p  
13n

need you + nick