

ATOMS

- atoms are NEUTRAL
no charge

$$\text{protons}^+ = \text{electrons}^-$$

IONS

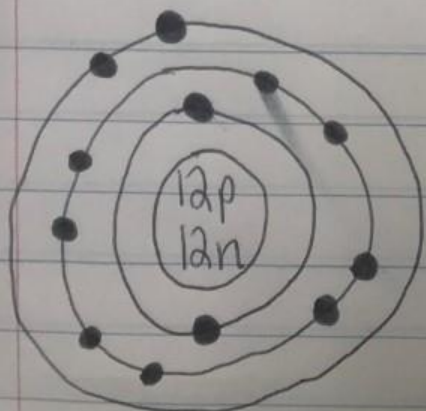
- atoms that have a charge
(+) cation
(-) anion

$$\text{protons} \neq \text{electrons}$$

+ charge loss of e^-
- charge gain of e^-

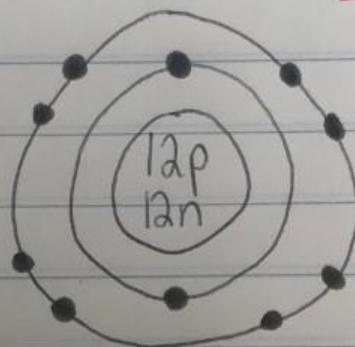
Magnesium (Mg)

$$p=12 \quad n=12 \quad e=12$$



Magnesium (Mg^{+2})

$$p=12 \quad n=12 \quad e=10$$



	ELEMENT NAME	ION SYMBOL	NUMBER OF PROTONS	NUMBER OF ELECTRONS	NUMBER OF ELECTRONS LOST OR GAINED
ex	Fluorine	F^-	9	10	gained one
1	Iodine	I^-	53	54	gained 1
2			16		gained two
3	potassium	K^+	19	18	lost one
4		Ca^{+2}			
5			35	36	
6		Sr^{+2}			
7		H^+			
8			8		gained two
9			12		lost two
10	aluminum			10	
11			34	36	
12		H^-			
13	lithium				lost one
14		Rb^+			
15			17	18	

