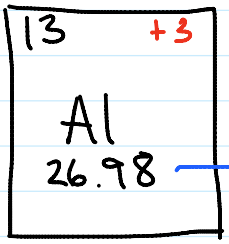
Calculating P+ N E-

Tuesday, February 14, 2017
9:22 AM

Atom: neutral = no charge
P^+ = # e^-

Ion:
- have a charge
- when an atom gains/loses an e^-, they become electrically charged.
- # of P^+ in the nucleus does not change

Ex. #1 Aluminum **ION**



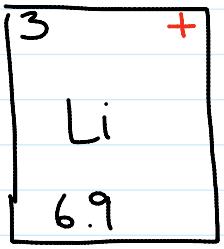
P^+ ⇒ atomic # is the # of protons
= 13

atomic mass = total # of P^+ and N°
round off this # to the nearest whole # to get mass # ≈ 27

N° ⇒ mass # − P^+
= 27 − 13
= 14

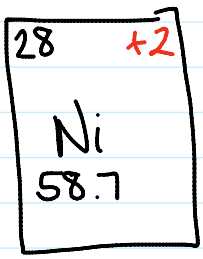
e^- ⇒ atomic # − charge
= 13 − (+3)
= 13 − 3
= 10

Ex. #2 Lithium **ION**



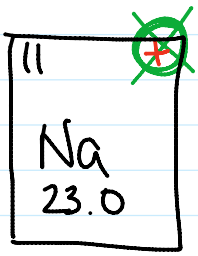
P^+	N°	e^-
= atomic # = 3	= round off atomic mass = 7 = mass # − P^+ = 7 − 3 = 4	= atomic # − charge = 3 − (+1) = 3 − 1 = 2

Ex #3 Nickel $^{+2}$ ION



P^+	N°	e^-
= atomic # = 28	= round off atomic mass = 59 = mass # − P^+ = 59 − 28 = 31	= atomic # − charge = 28 − (+2) = 28 − 2 = 26

Ex #4 Sodium Atom



P	N°	e^-
= atomic # = 11	= round off atomic mass = 23 = mass # − P^+ = 23 − 11 = 12	= atomic # and # of P^+ = 11