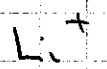
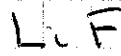


① They are equal.

eg.



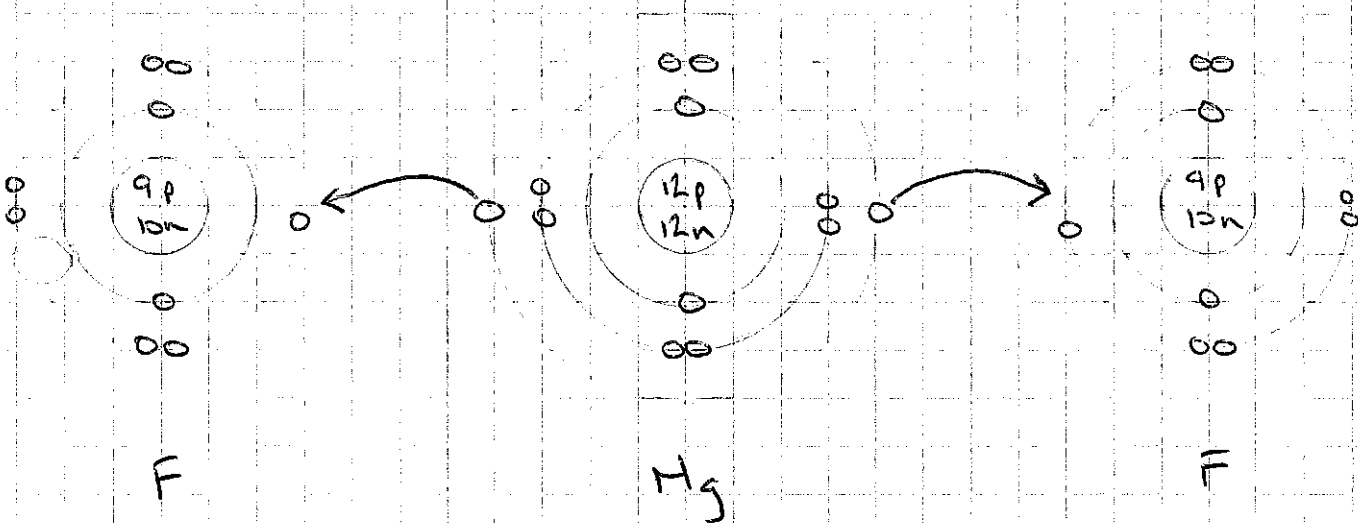
+1 and -1 are equal (but opposite sign)

② Al_2O_3 Al is +3 O is -2

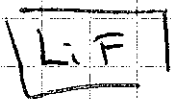
$$2(+3) + 3(-2) = +6 - 6 = 0$$

So the sum is 0

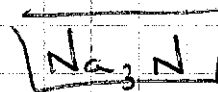
③



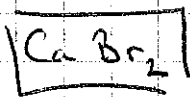
④ a) Li^+ F^-



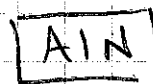
c) Na^+ N^{3-}



b) Ca^{2+} Br^-



d) Al^{3+} N^{3-}

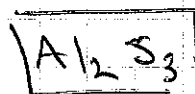
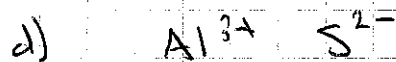
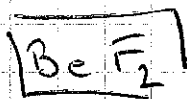
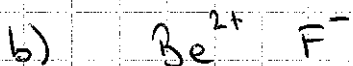
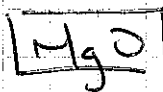
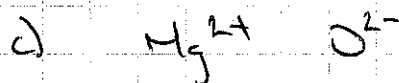
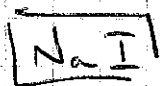
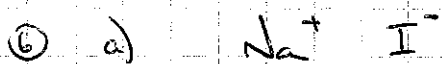


⑤ a) lithium fluoride

b) calcium bromide

c) sodium nitride

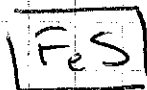
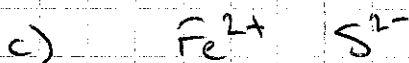
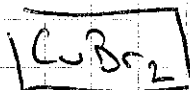
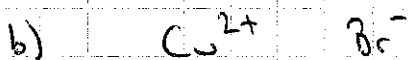
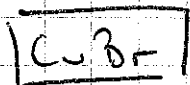
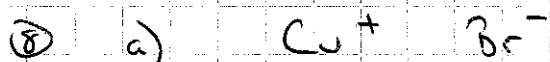
d) aluminum nitride



⑦ a) potassium chloride

b) sodium phosphide

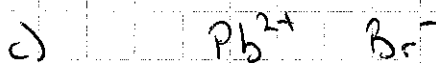
c) calcium fluoride



Tin(II) chloride



Tin(IV) chloride



lead(II) bromide

- ⑩ a) Fe_2O_3 iron (III) oxide
 b) CaF_2 calcium fluoride
 c) Cu_2S copper (I) sulfide

⑪ iron

⑫ an ion that contains 2 or more atoms

e.g. NH_4^+ PO_4^{3-}

- ⑬ a) Na^+ PO_4^{3-} e) Be^{2+} NO_3^-
 $\boxed{\text{Na}_3\text{PO}_4}$ $\boxed{\text{Be}(\text{NO}_3)_2}$
 b) Ca^{2+} SO_4^{2-} f) Mg^{2+} HCO_3^-
 $\boxed{\text{CaSO}_4}$ $\boxed{\text{Mg}(\text{HCO}_3)_2}$
 d) K^+ ClO_3^- g) Ni^{2+} CO_3^{2-}
 $\boxed{\text{KClO}_3}$ $\boxed{\text{NiCO}_3}$
 d) Al^{3+} OH^-
 $\boxed{\text{Al}(\text{OH})_3}$

- ⑭ a) potassium carbonate
 b) sodium sulfate
 c) aluminum hydrogen carbonate
 d) silver nitrate

(15) because NH_4 and NO_3 are polyatomic ions and must be written as is.

