

less value of S.P.P. \Rightarrow Anode \Rightarrow oxidation \Rightarrow Zn

more value of S.P.P. \Rightarrow Cathode \Rightarrow Reduction. \Rightarrow Cu

Application of E.C.S. \div

(1) Reactivity of metal

Reactivity of metal \propto Value of S.P.P.

(2) Reactivity of Non-metal

Reactivity of Non metal \propto Value of S.P.P.

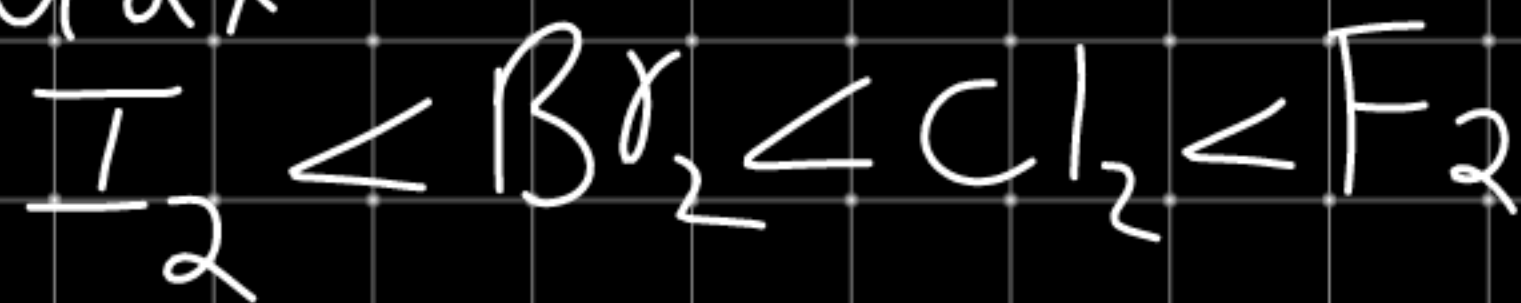
Li is highly reactive metal

Li to F₂ in e.c.s
reactivity of metal decreases.

F₂ is highly reactive non-metal.

Li to F₂ reactivity of non-metal increases.

Order of reactivity of non-metal.



(3) Reducing Agent and oxidising Agent $\frac{e^-}{e^-}$
(Reductant) (R.A.) (O.A.) (Oxidant) (oxidising nature)
(Reducing nature)

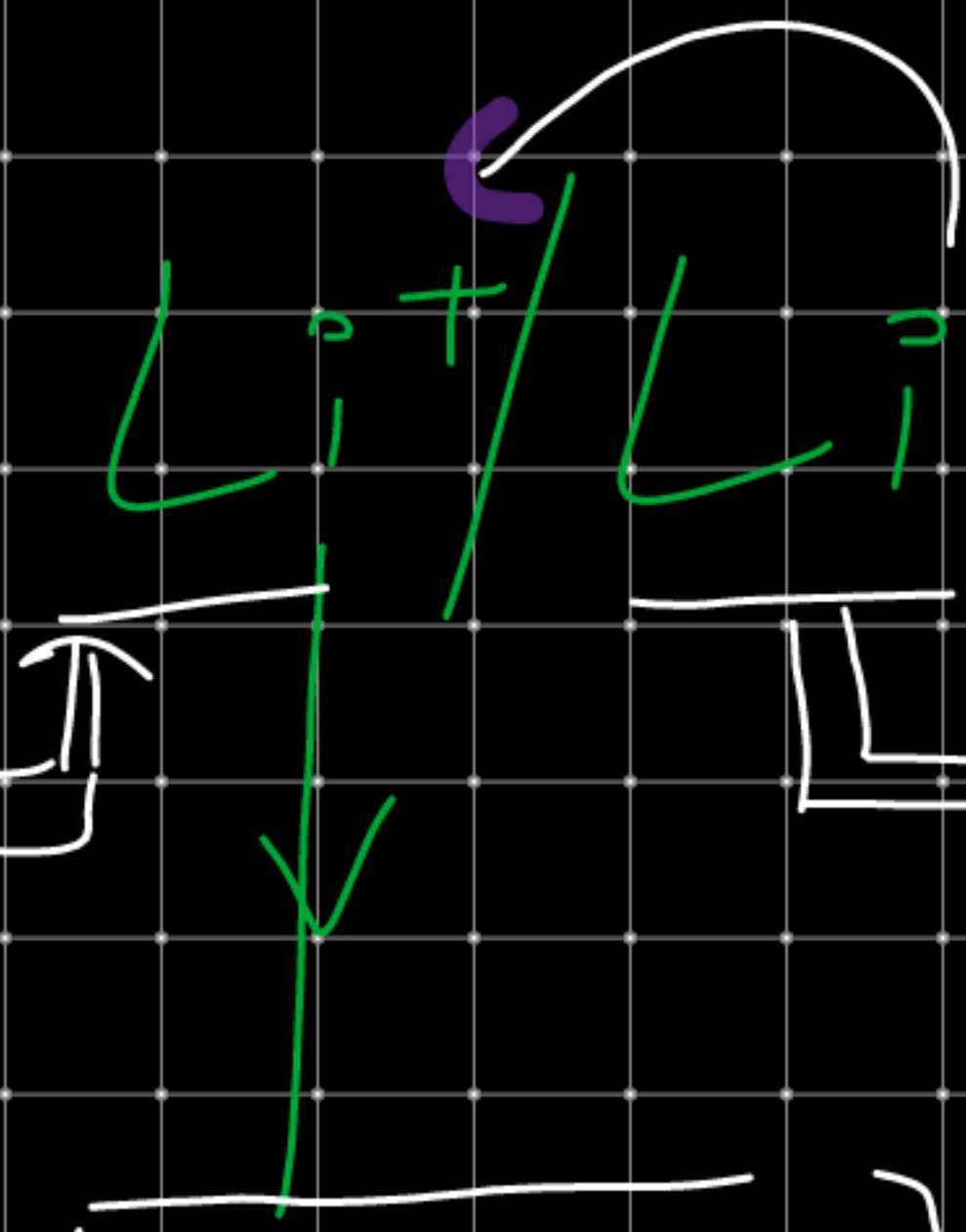
S.A.P. \Downarrow R.A. \Uparrow

S.A.P. \Uparrow O.A. \Uparrow

Li is Strongest Reducing agent (Reductant)

F₂ is Strongest oxidising agent (Oxidant)

Weakest
O.A.



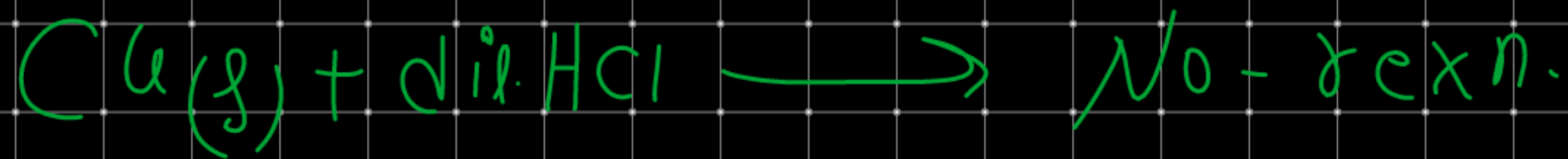
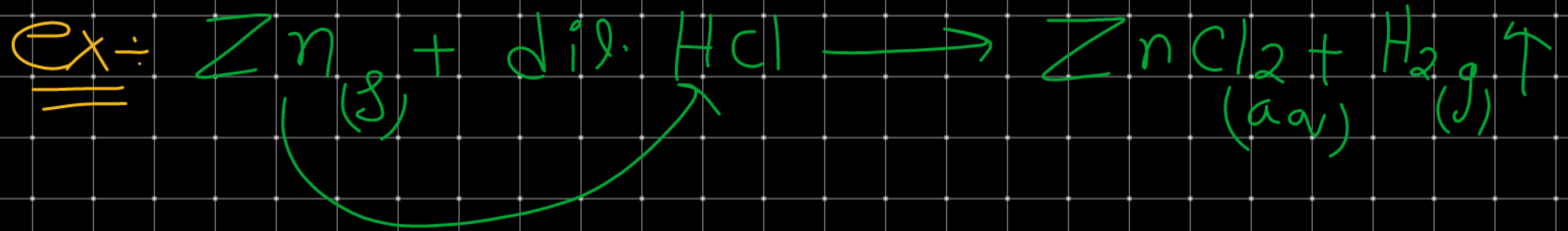
Strongest O.A.

Strongest
O.A.



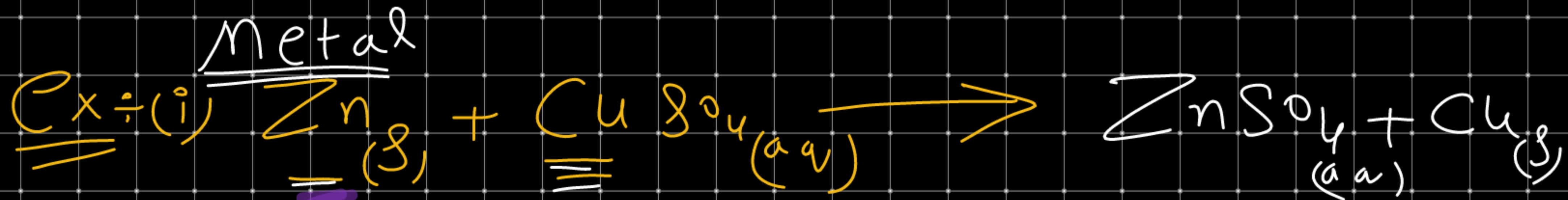
Weakest O.A.

(4) Metal above H_2 in E.C.S. Can displace
 $H_2(g)$ in dilute acid.

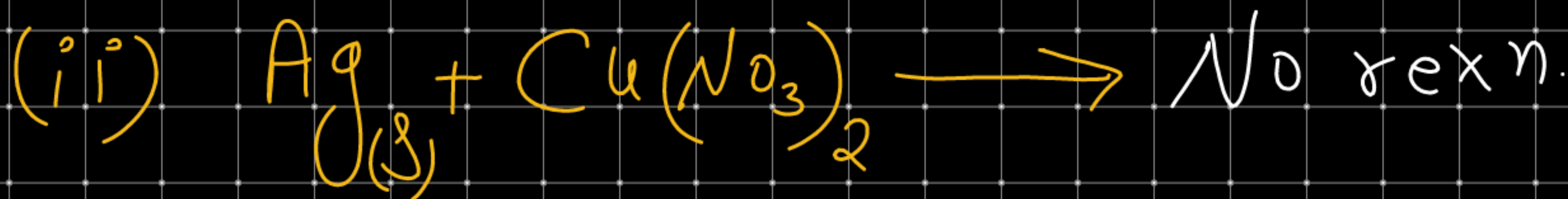


(5) metal to metal or Non-metal to metal
displacement $\frac{\circ}{\text{—}}$

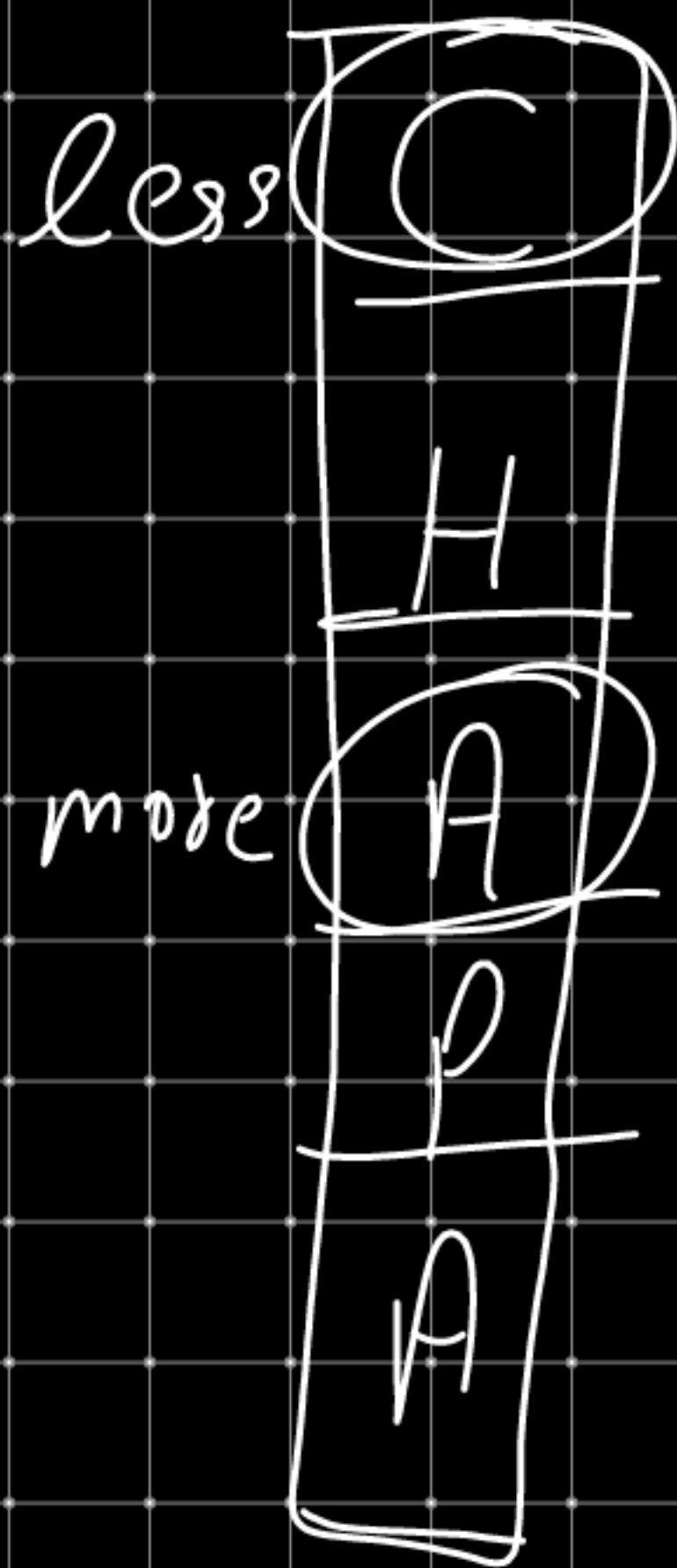
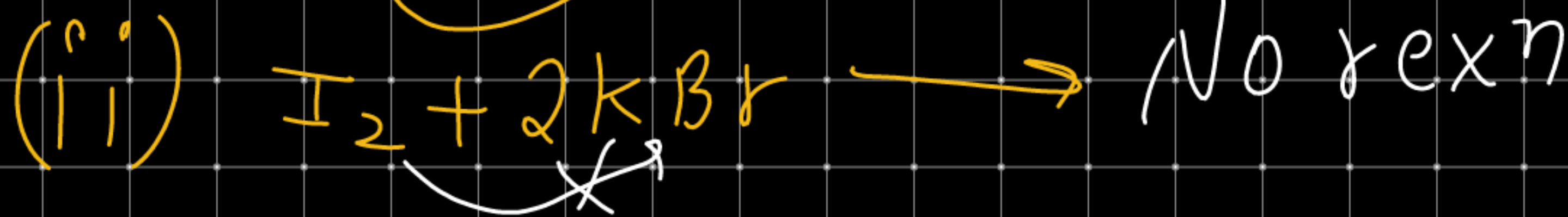
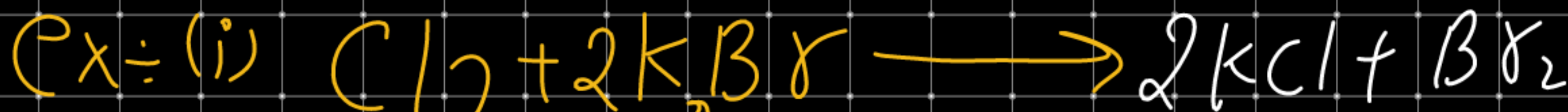
More reactive metal or non-metal, displace
less reactive metal or non-metal in their
aqueous solution.



(Zn is more reactive than Cu)



Non-metal:



Q.1. W.O.T.F. highest & reactive metal. $\frac{1}{S.P.P.}$

(i)

- ~~(a) Li~~
- (b) K
- (c) Na
- (d) Mg

(ii)

- (a) Fe (3)
- ~~(b) Zn~~ (1)
- (c) Cr (2)
- (d) Co (4)

(iii)

- ~~(a) Sn~~ (1)
- (b) Cu (2)
- (c) Ag (4)
- (d) Hg (3)

Q.2. W.O.T.F

Strongest

reductant (P.A.)

Reduce other & self oxidise

