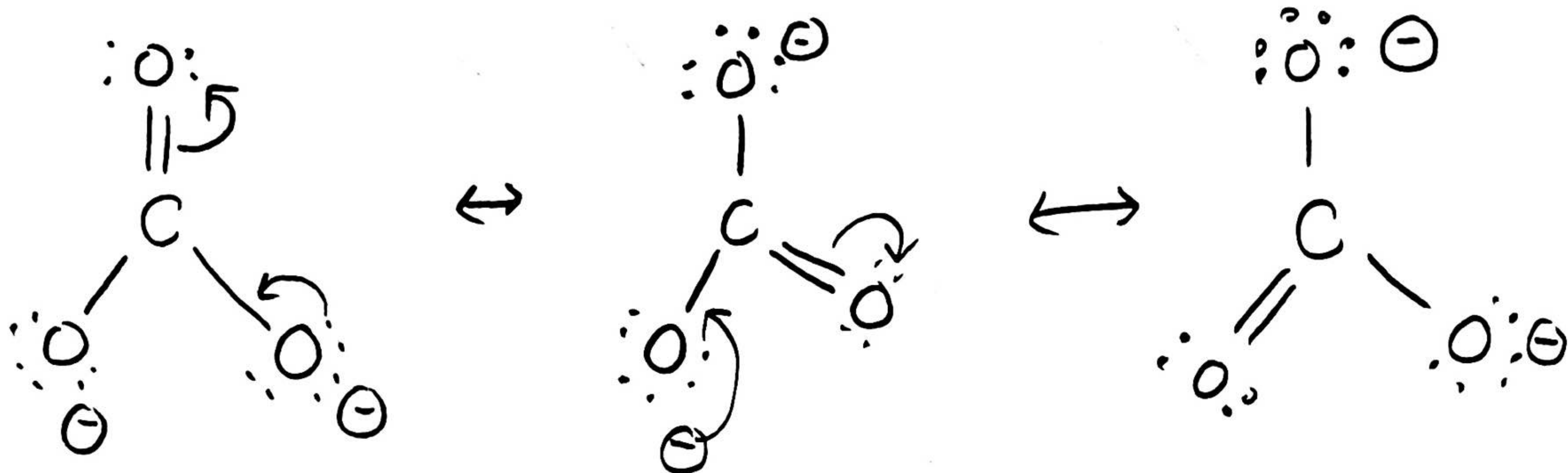


Answers Tuesday 10th

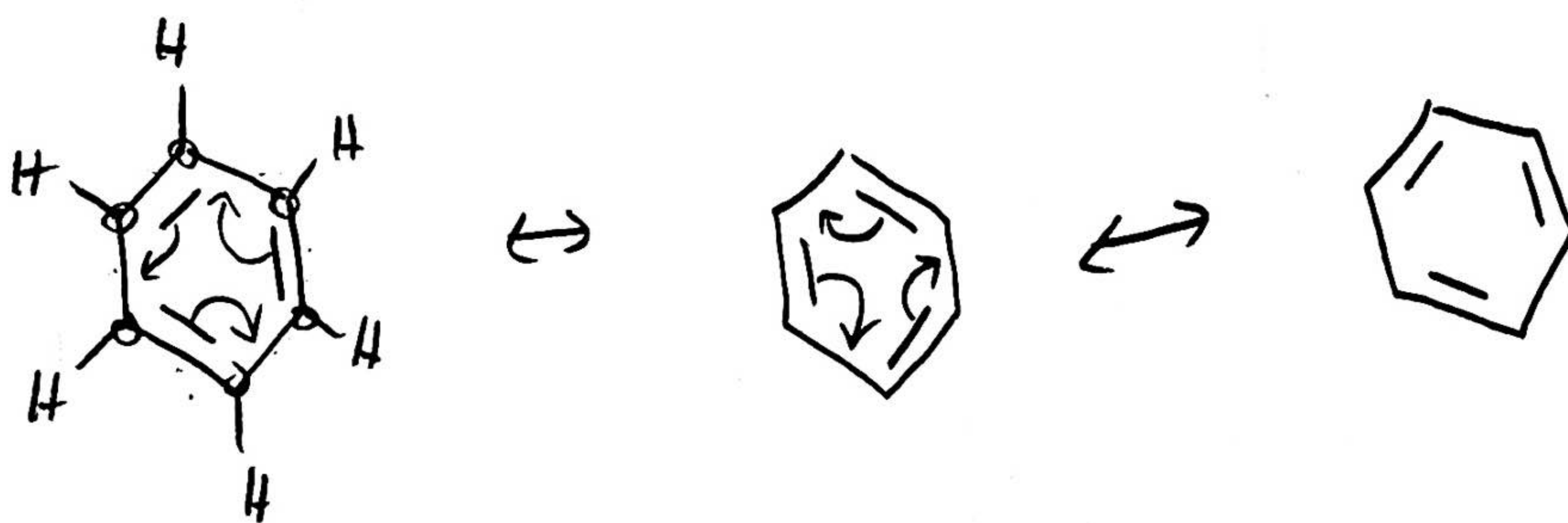
①

a



$$BO = \frac{\text{\# bonds}}{\text{\# interactions}} = \frac{4}{3} = 1.\bar{3}$$

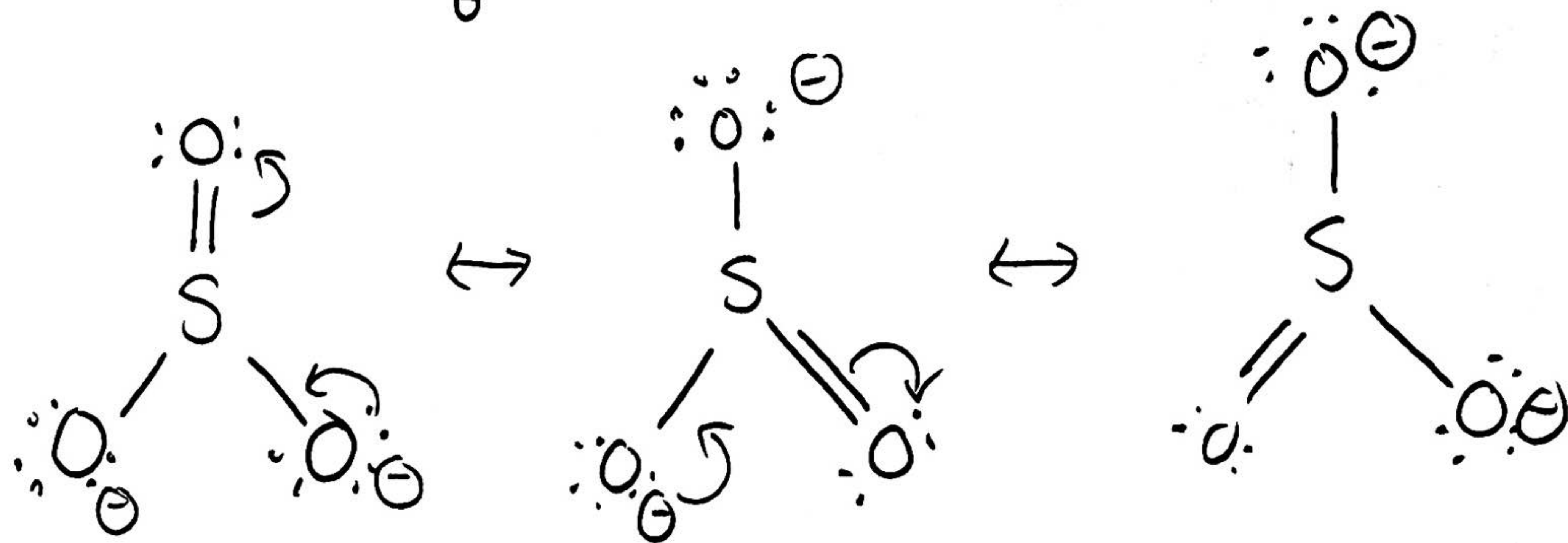
b)



The π bonds exist simultaneously and are actually delocalized in this molecule which is BENZENE :)

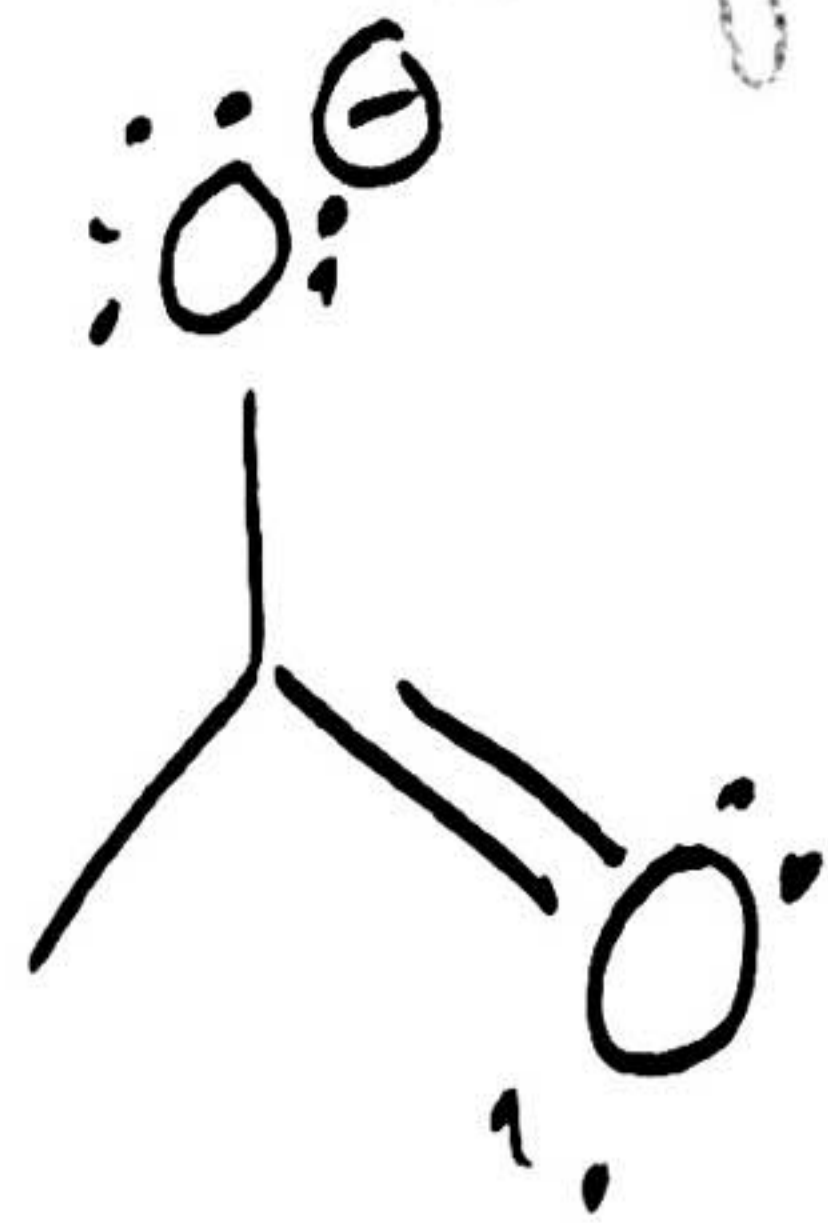
$$BO = \frac{9}{6} = 1.5$$

c)



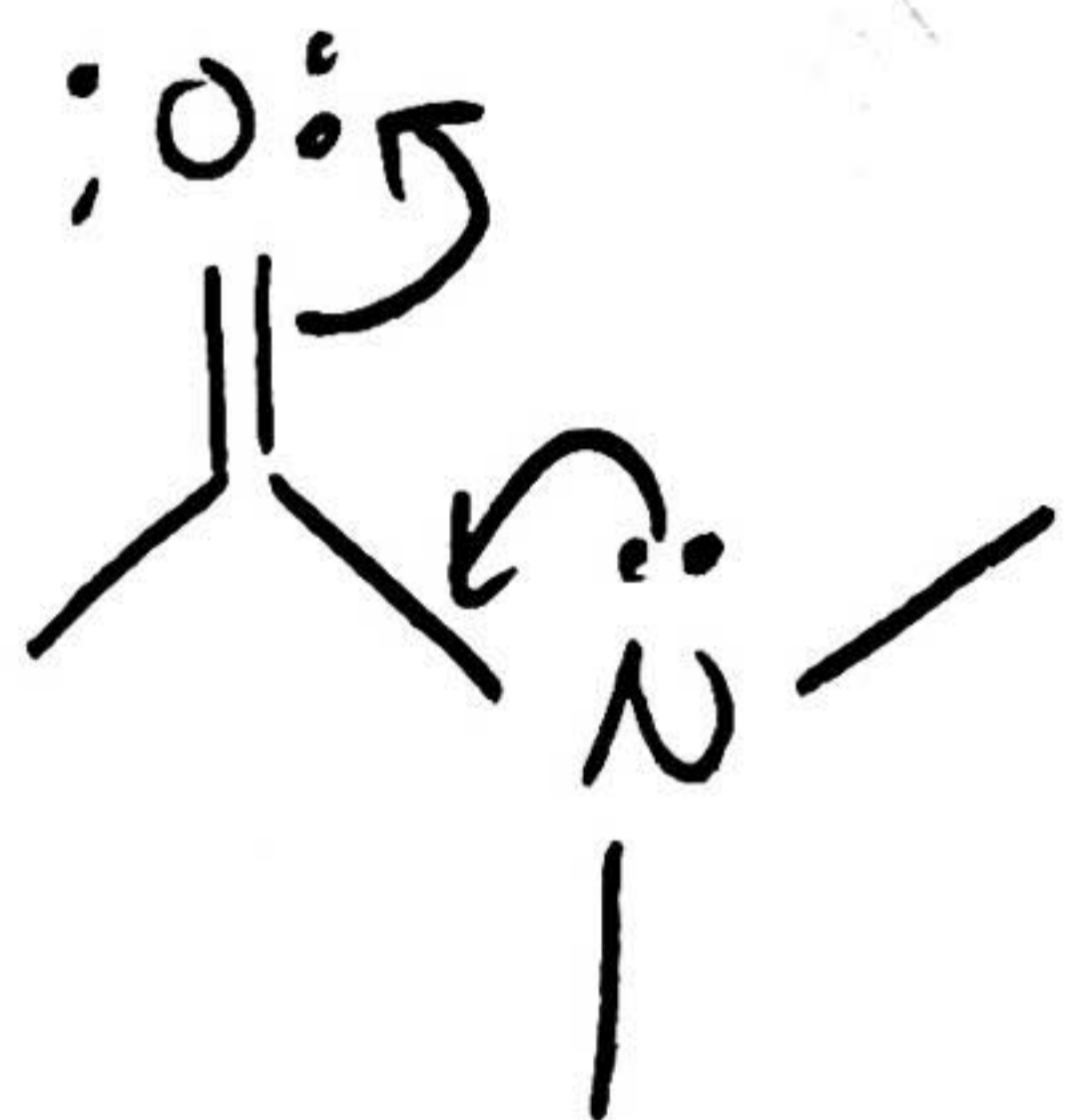
$$BO = \frac{4}{3} = 1.\bar{3}$$

d)



$$BO = \frac{3}{2} = 1.5$$

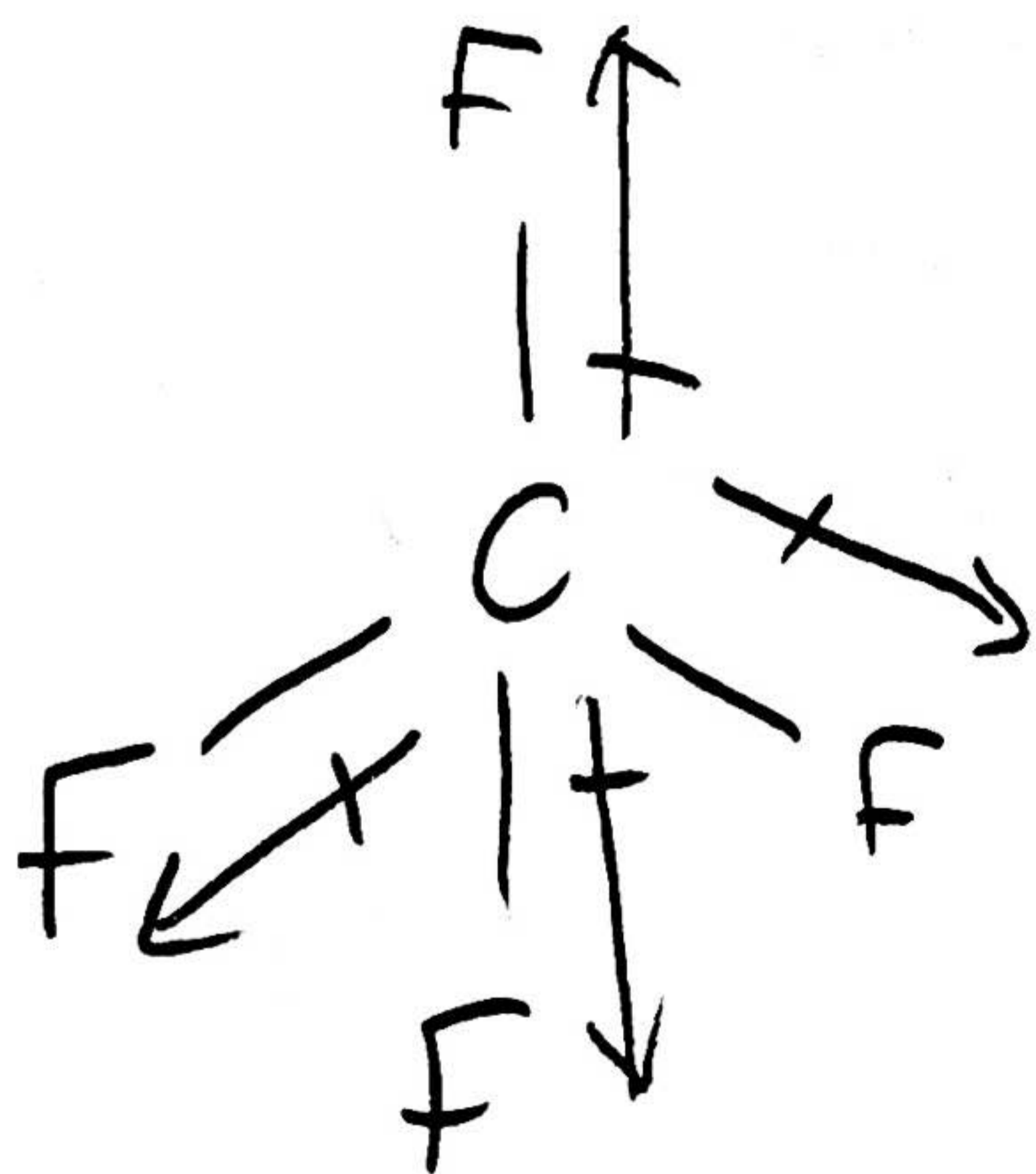
②



formal charge
also changes!
to (+1)

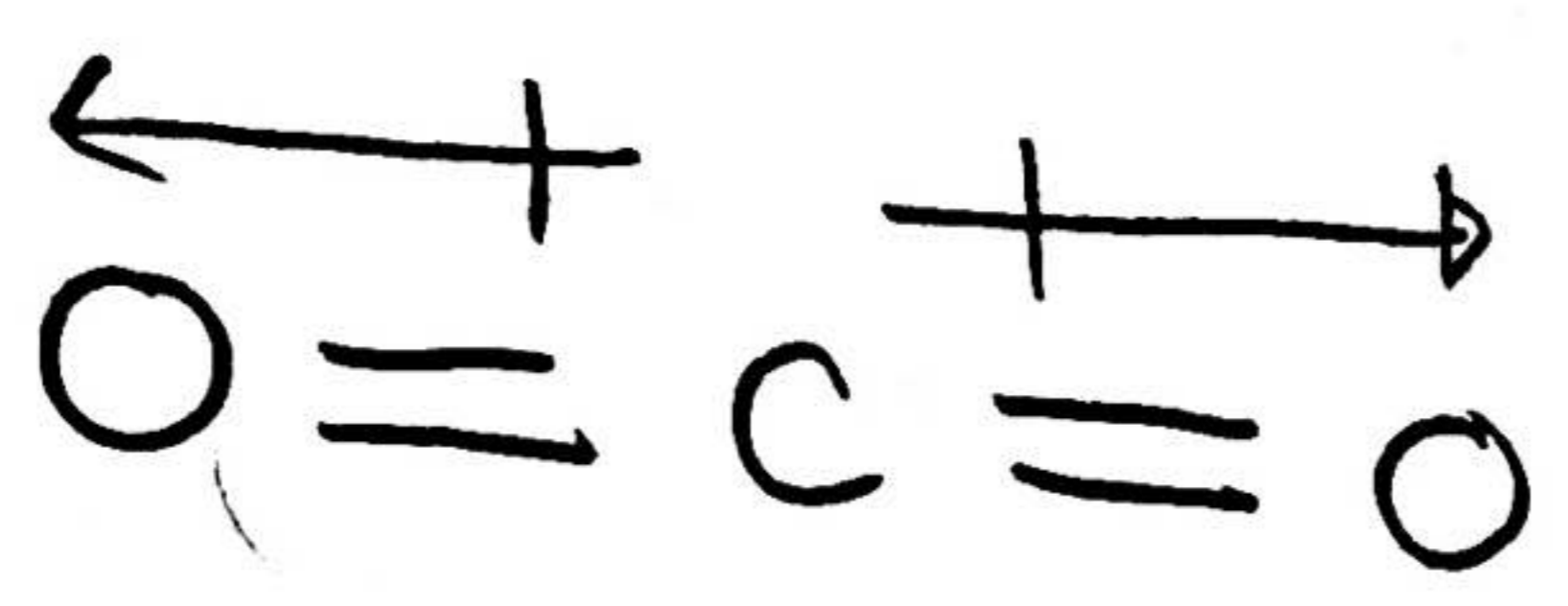
$$N = 5 - 4 = +1$$

③

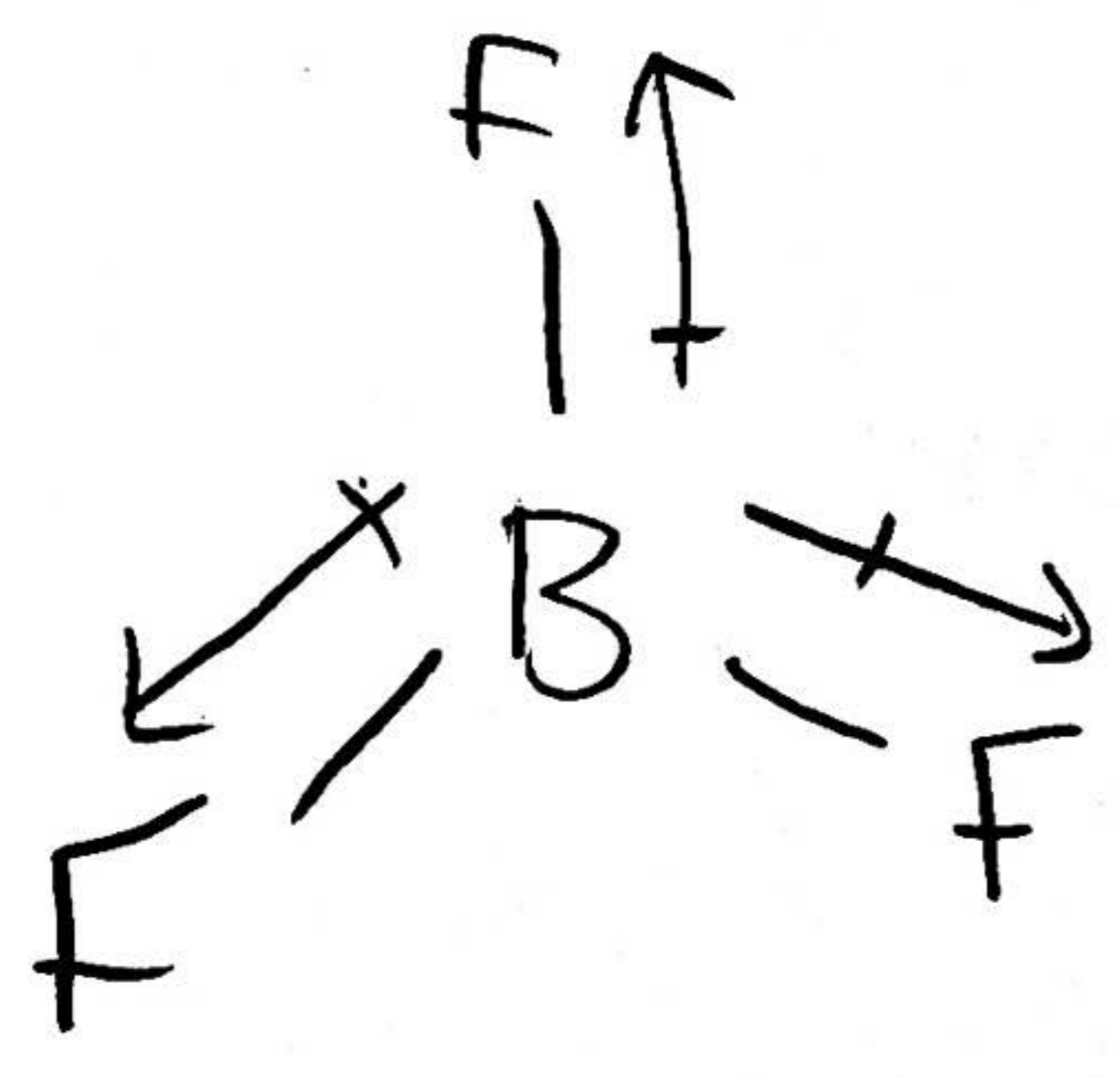


Dipoles effectively cancel out
one another ∴ NON polar

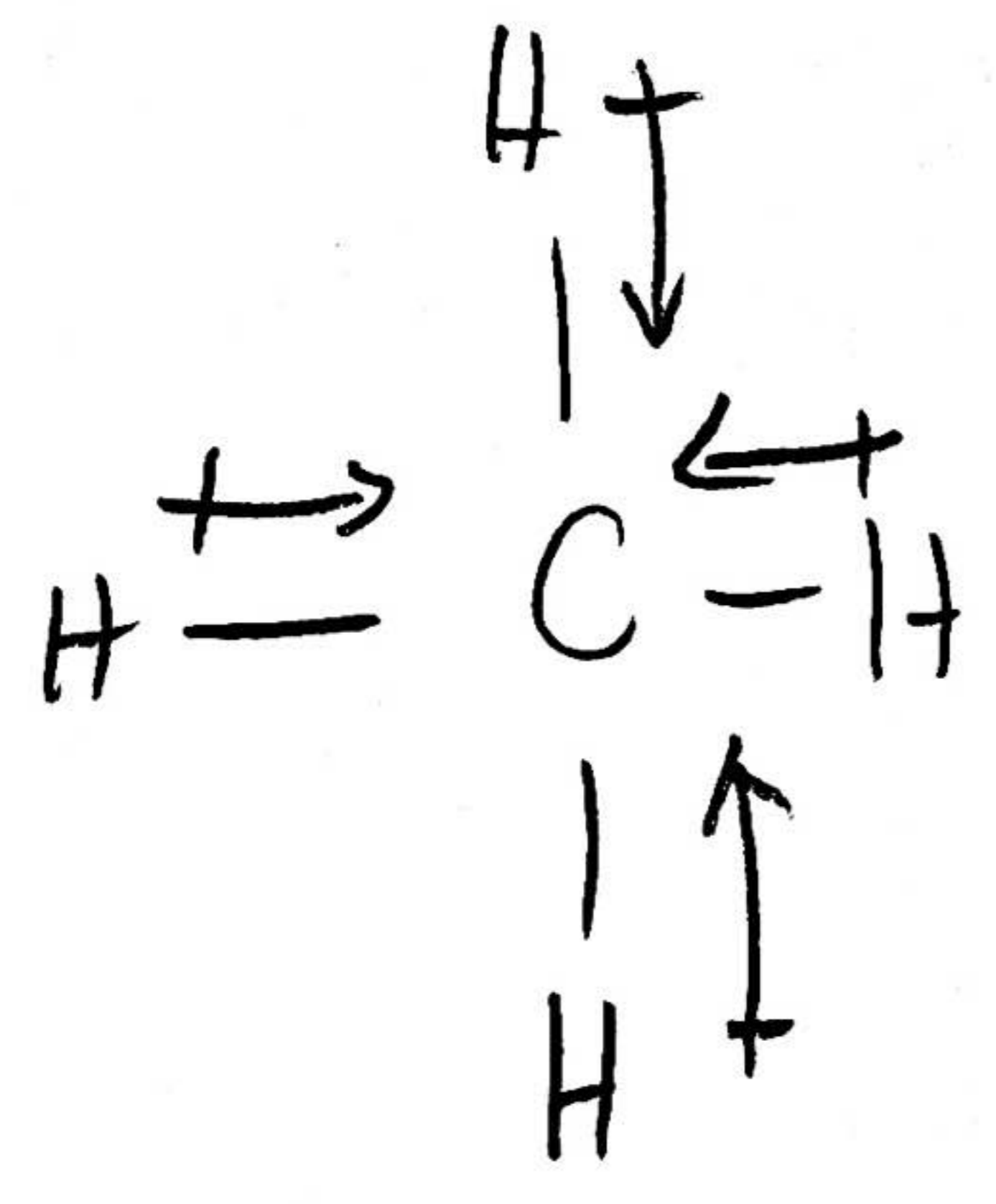
4



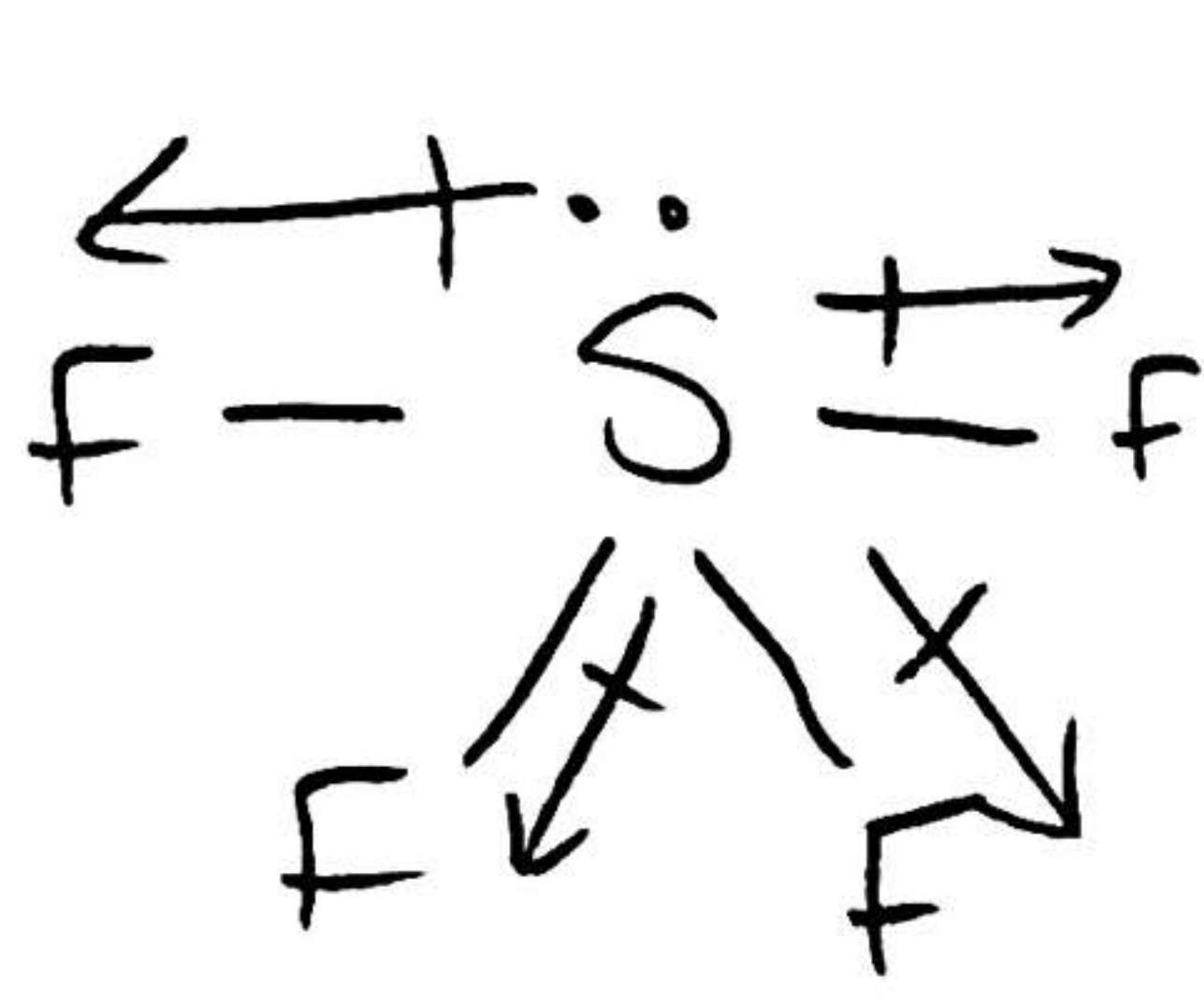
- a) AX_2 , linear
- b) sp
- c) ON structure
- d) non polar



- a) AX_3 trigonal planar
- b) sp^2
- c)
- d) non polar



- a) AX_4 Tetrahedral
- b) sp^3
- c)
- d) non polar

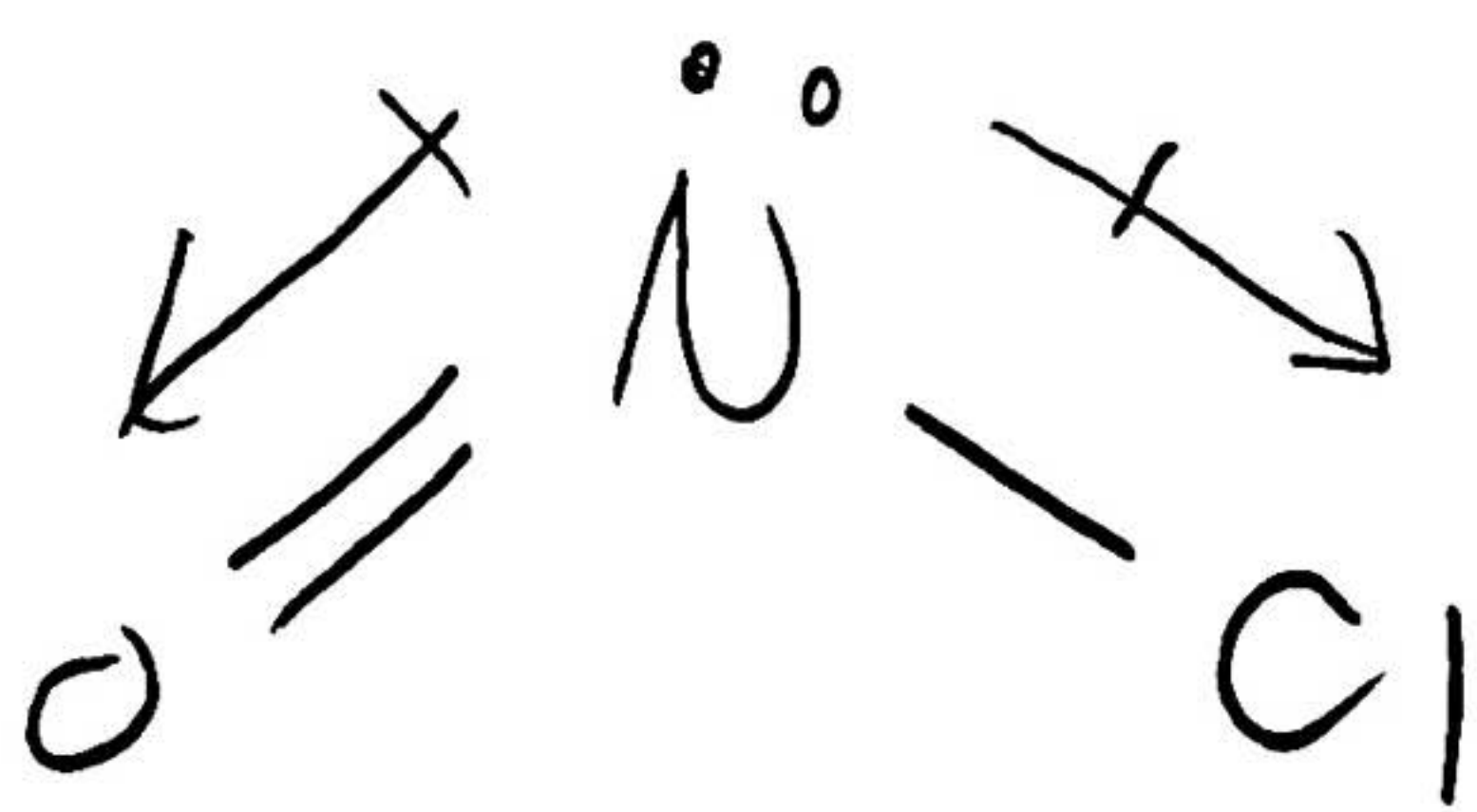


a) AX_4E , see-saw

b) sp^3d * she wouldn't ask this...

c)

d) POLAR! LP causes the bonds to not cancel out they are not symmetrical



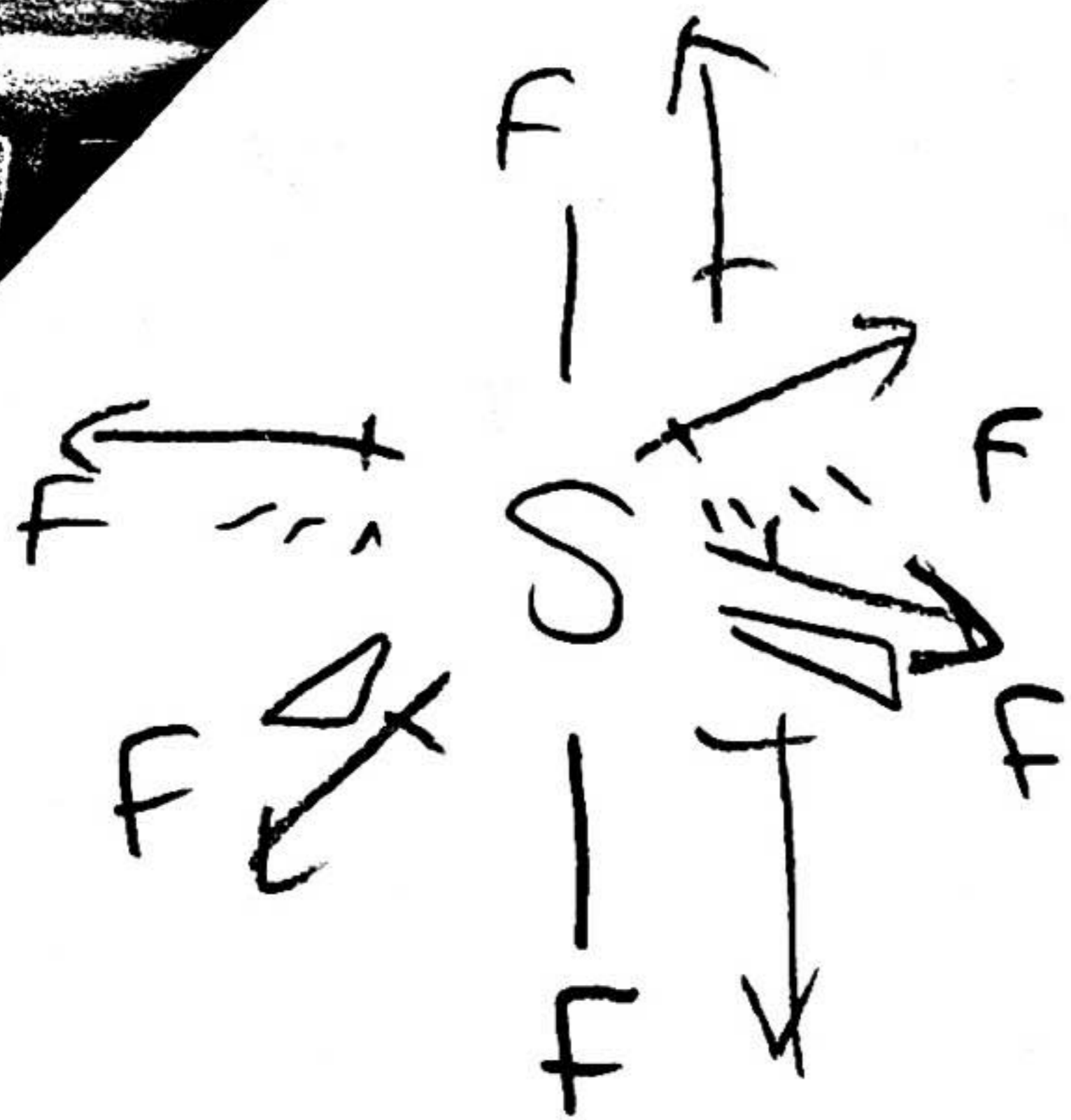
a) AX_2E Bent

b) sp^2

c)

d) polar!

Ed meand

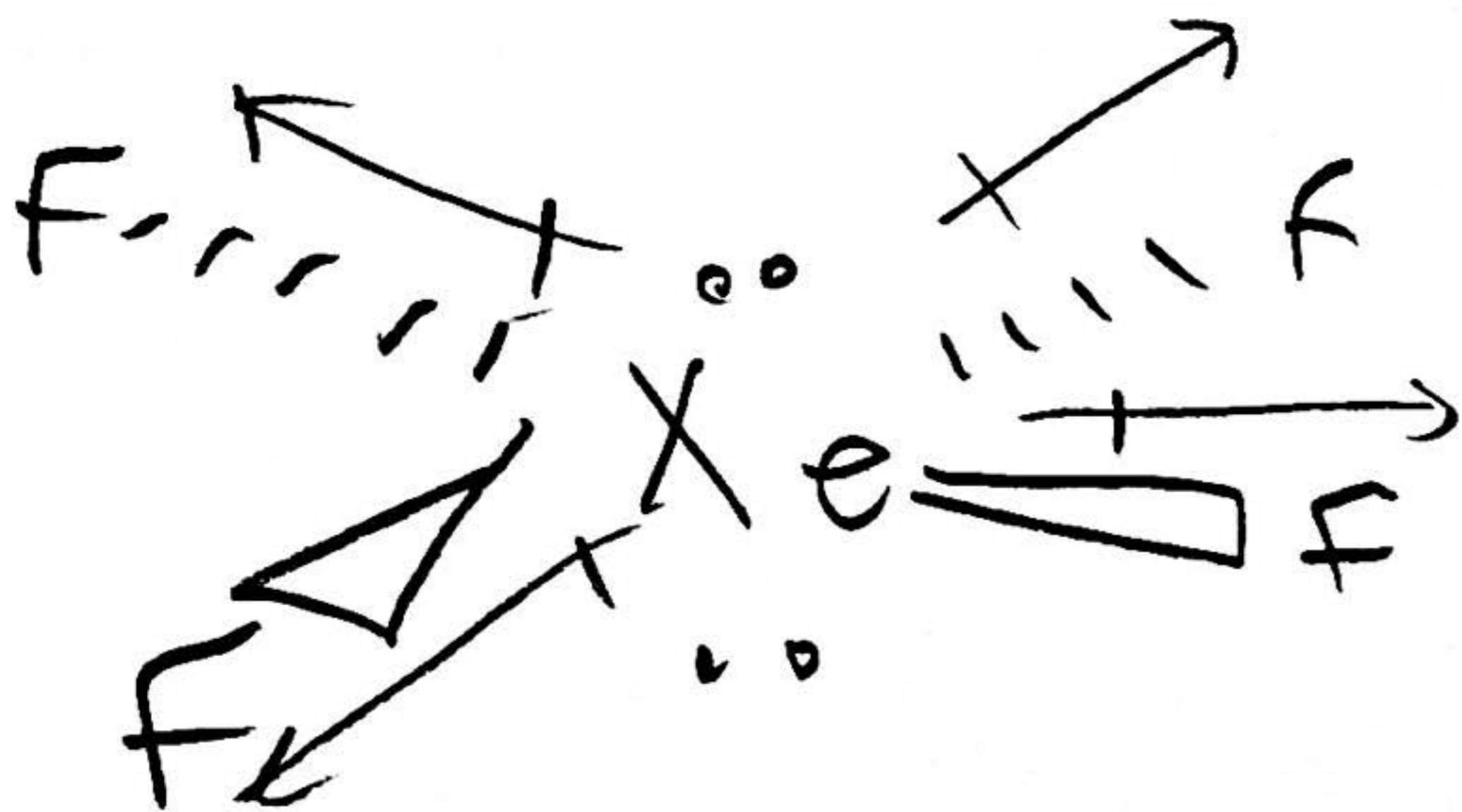


a) AX_6 octahedral

b) sp^3d^2

c)

d) NON polar



a) AX_4E_2

b) sp^3d^2

c)

d) NON polar