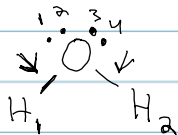


# Chemistry 1010 Formal Charge

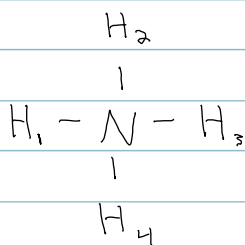
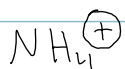
$$FC = \# \text{ of valence } e^- - \# \text{ of bonds} - \# \text{ of unbonded } e^-$$



$$H_1 = 1 - 1 - 0 = 0$$

$$O = 6 - 2 - 4 = 0$$

$$H_2 = 1 - 1 - 0 = 0$$



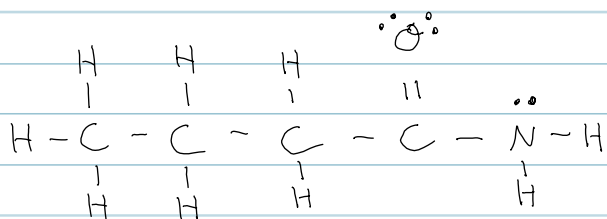
$$H_1 = 1 - 1 - 0 = 0$$

$$H_2 = 1 - 1 - 0 = 0$$

$$H_3 = 1 - 1 - 0 = 0$$

$$H_4 = 1 - 1 - 0 = 0$$

$$N = 5 - 4 - 0 = \underline{\underline{+1}}$$



# of usual bonds

$$H = 1$$

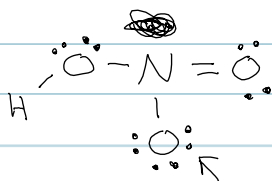
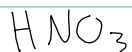
$$C = 4$$

$$O = 2$$

$$N = 3$$

$$B = 3$$

$$F, Cl, Br, I = 1$$



$$N = 5 - 4 - 0 = +1$$

$$O = 6 - 1 - 6 = \underline{\underline{-1}}$$