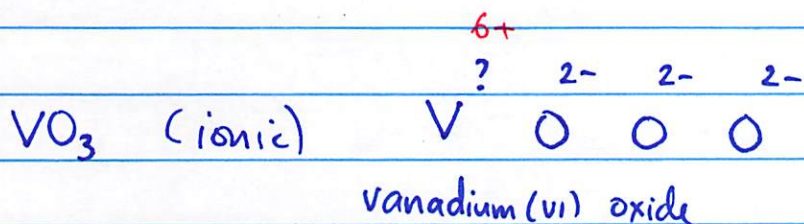


Wed lab: Meet in MAS439 (no quiz!)

Today: Ch 11

FRI: Finish ch 10

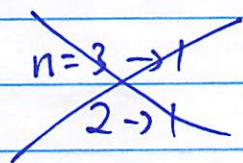
Mon: Lewis lab due (INDIVIDUAL!)



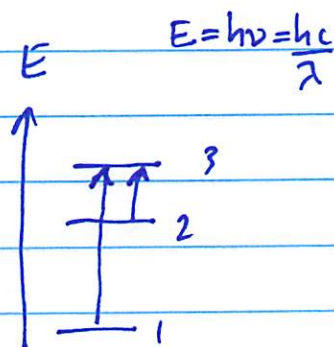
How many H atoms are in 18.02g H_2O

$$2 \times 6.022 \times 10^{23} = 12 \times 10^{23} \\ = 1.2 \times 10^{24}$$

: absorption of longest λ



$n=1 \rightarrow 3$
 $2 \rightarrow 3$



Ch 11 Chemical bonding 2

- Molecular shapes (x)
- Valence bond theory

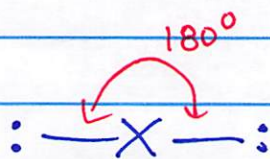
Simple model for shapes: VSEPR

Valence Shell Electron Pair Repulsion

e⁻ pairs repel + try + stay apart!

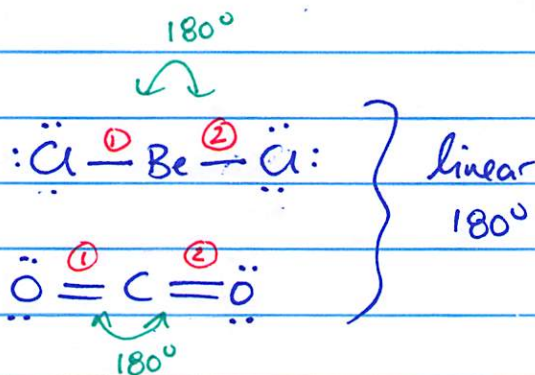
bonds lone-pair
(single, double, triple)

2 repulsions

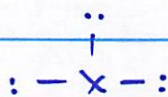


LINEAR

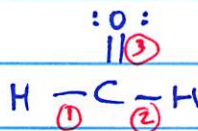
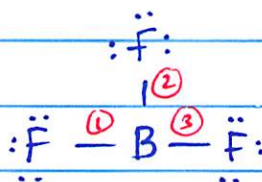
ex:

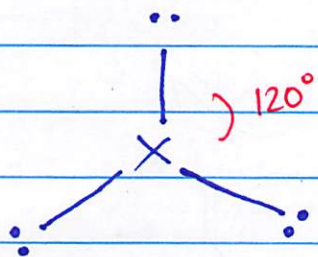


3-repulsions:



ex:

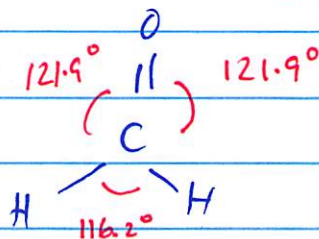
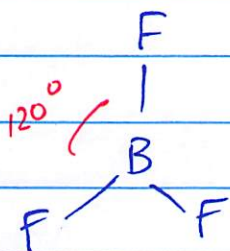




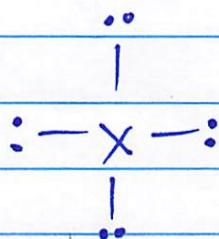
120°

trigonal-planar

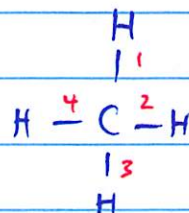
double-bond
is sl. bigger



4-repulsions



such as:



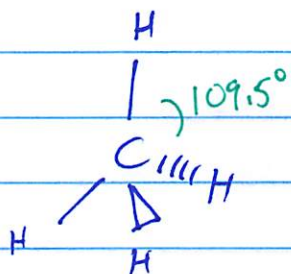
in the plane (flat)

109.5°

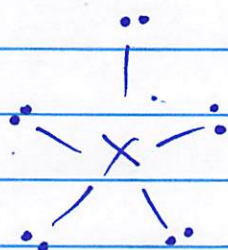
dashed line ... going away

tetrahedral

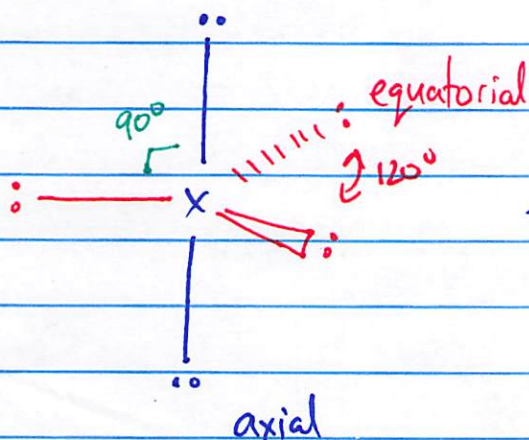
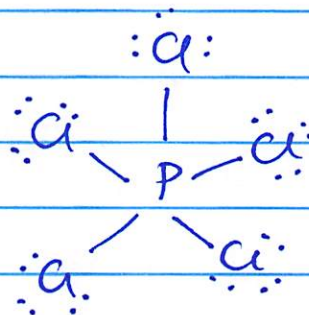
wedge ... coming towards you!



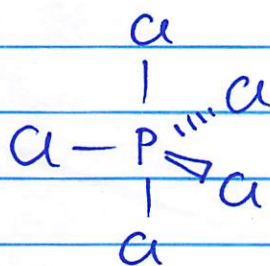
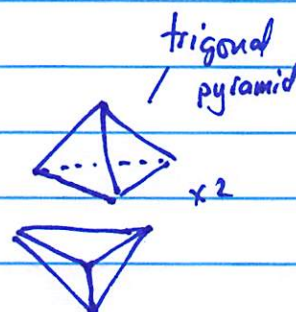
5-repulsion



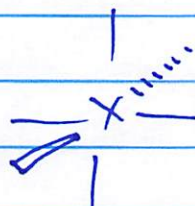
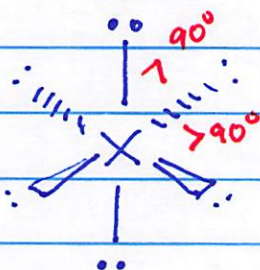
such as:



trigonal
bipyramidal



6-repulsions



octahedral

