

Exam 4: R @ 5pm (LIB 204)

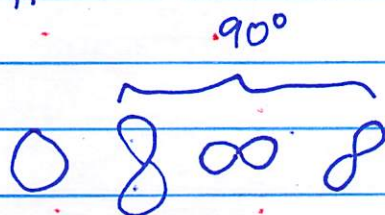
Final: W @ 12pm (MAS 020)

Dec 11

FR1 class: final review

extra credit opp.

Hybridization!



#rep

geom

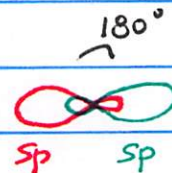
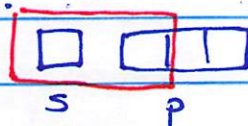
atomic orbitals

hybrids

2

linear

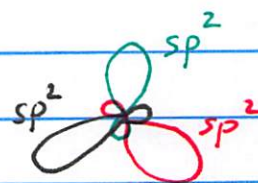
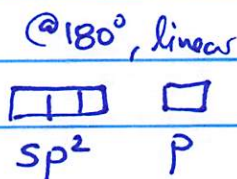
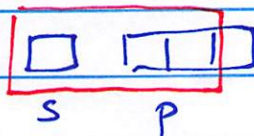
180°



3

trig. planar

120°

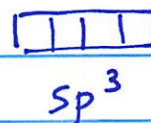


@ 120° , trig. pl.

4

tetrahedral

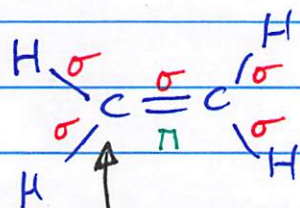
109.5°



109.5°

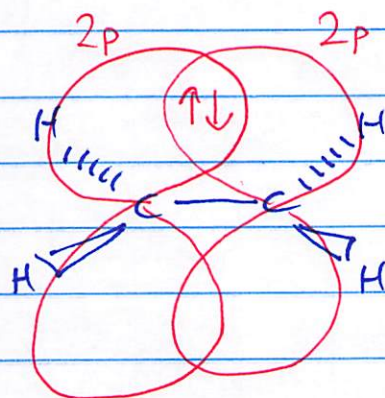
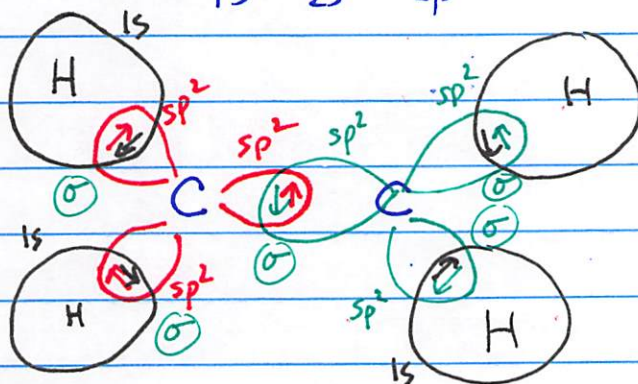
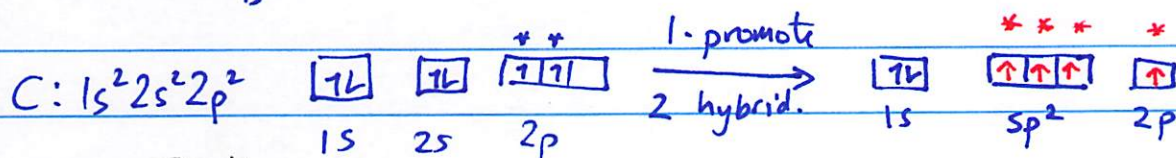
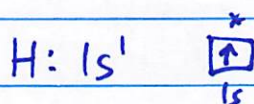


Ethylene



#rep = 3 \rightarrow VSEPR: trigonal planar, 120°

HYBRID ORB needed: sp^2



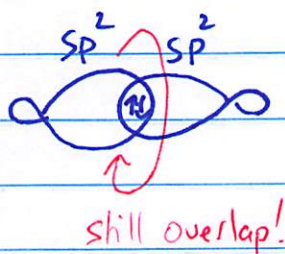
σ -framework

π -bond

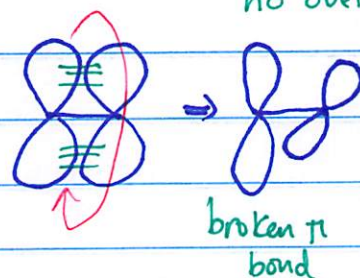
cost E!

no overlap!

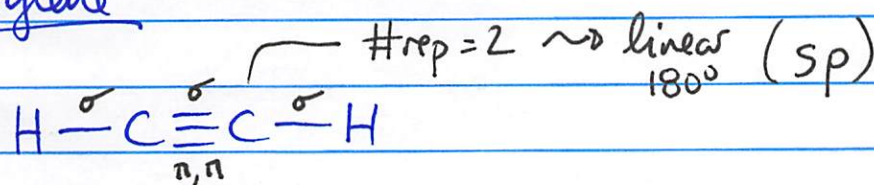
σ -bonds
freely rotate:



π -bonds
are rigid.



Acetylene



#rep	hybrid
2	sp
3	sp ²
4	sp ³
5	sp ³ d
6	sp ³ d ²

