

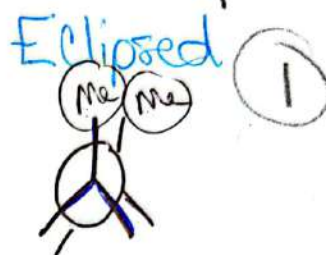
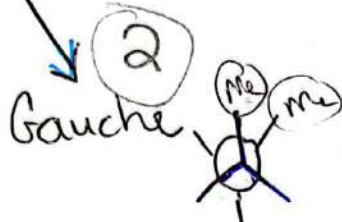
Ch 6.1 + 6.2

Name: Kay
Date:

Newman Projection practice #1

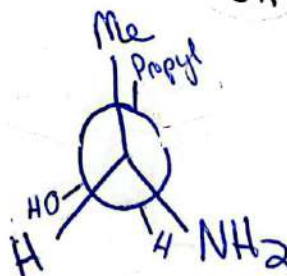
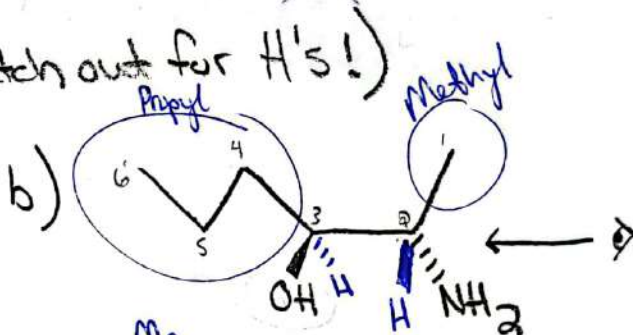
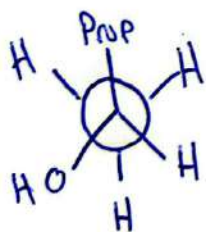
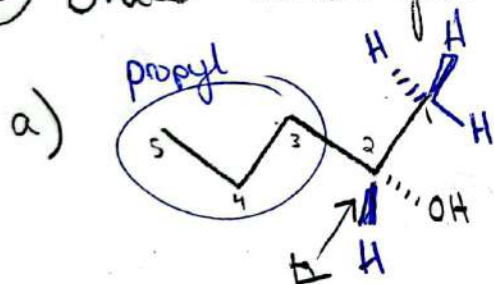
- ① List out (and draw) the different possible Newman Projections (Hint: there are 3! ^{examples}) Number them from least → most stable

Staggered



- ② Why are there multiple projections for a single molecule?
b/c single bonds can rotate!
(and twist into many diff. arrangements due to that rotation)

- ③ Draw "what you see" (watch out for H's!)



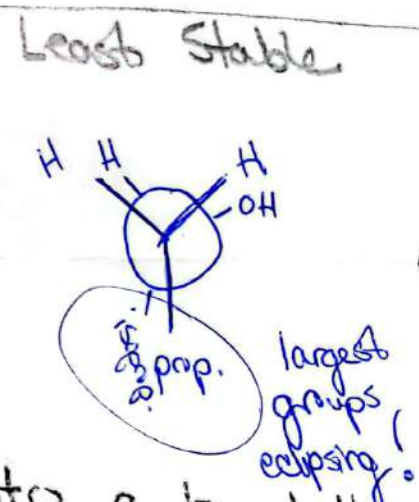
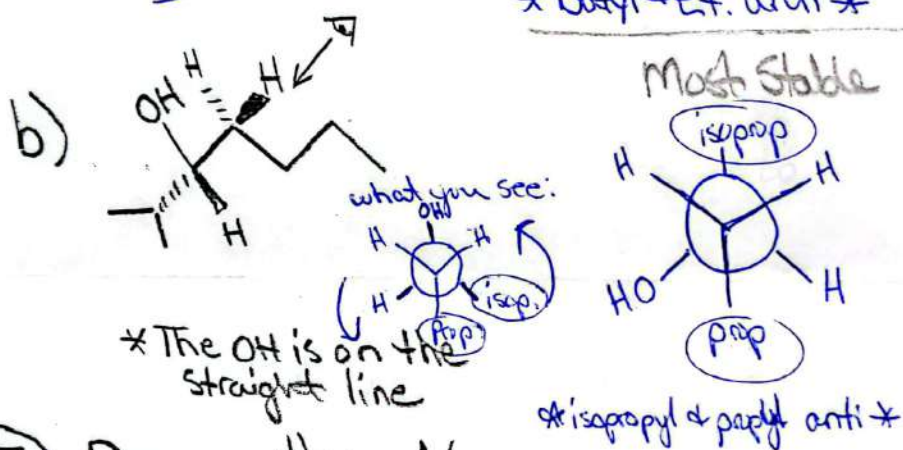
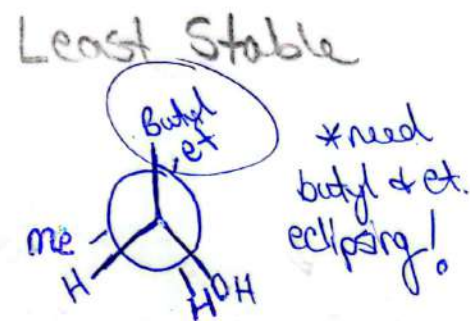
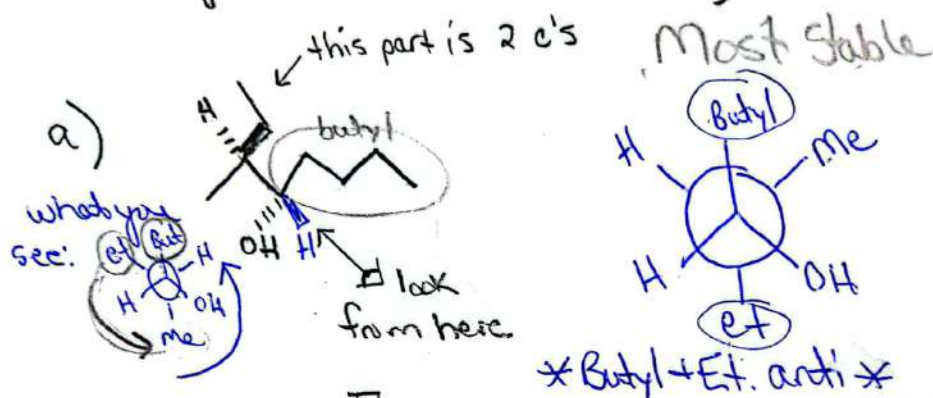
★ must be shown as eclipsed!

- ④ Describe the stability of the structures (as shown) in 3a & b.
3a - in staggered pos. - pretty stable
3b - Me & Prop are eclipsed * NOT stable!

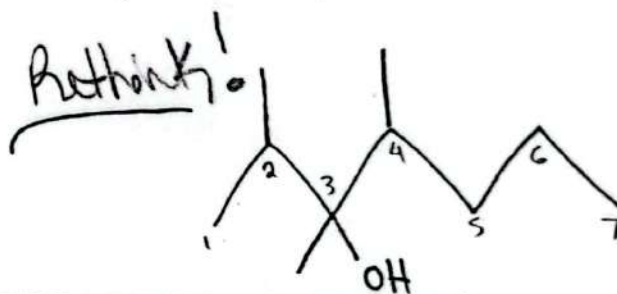
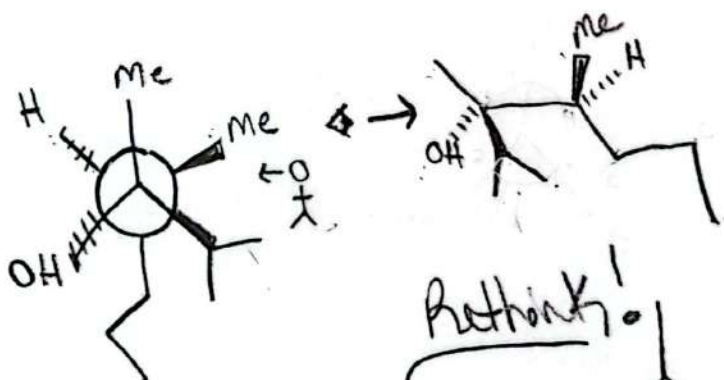
- ⑤ Name each structure in 3a & b. (ignore stereocenters R/S)
a) pentan-2-ol b) 2-aminohexan-3-ol

and label Key

⑥ Draw the most and least stable projections for each picture. (Hint, you may need to draw "what you see" then rotate!)



⑦ Draw the Newman projection into a bond-line structure, use wedges & dashes too! ☺



b) Name it!

1,3,4-trimethylheptan-3-ol

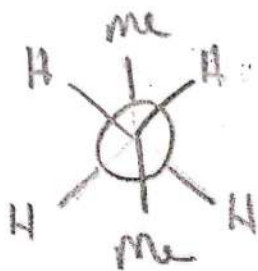
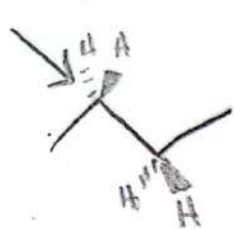
☺

Name: Holly

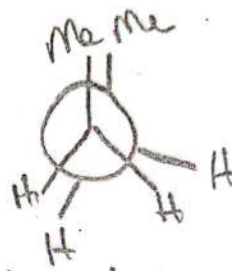
Newman Projection Practice #2

For each of the following, draw the bond-line structures. Then draw the most stable and least stable Newman projections relative to the C-C bond indicated.

1) Butane, relative to the C2-C3 bond.

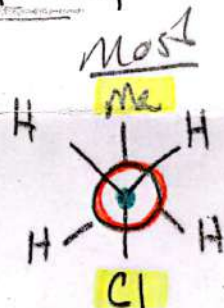
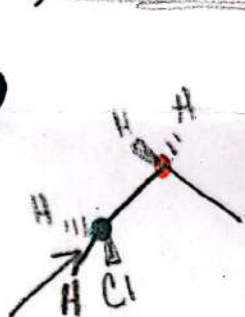


Most stable

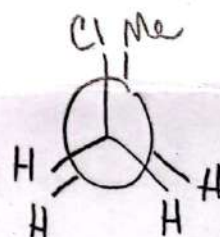


Least

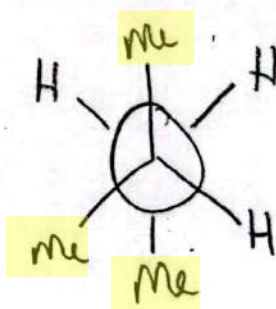
2) 1-chloropropane, relative to the C1-C2 bond.



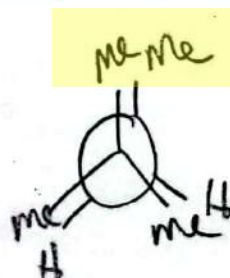
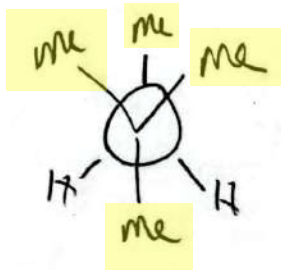
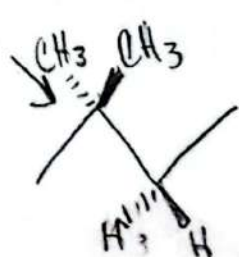
Most



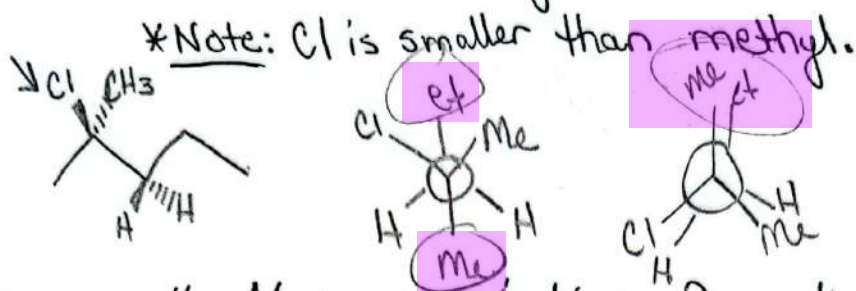
3) 2-methylbutane, relative to the C2-C3 bond.



4) 2,2-dimethylbutane, relative to the C2-C3 bond.

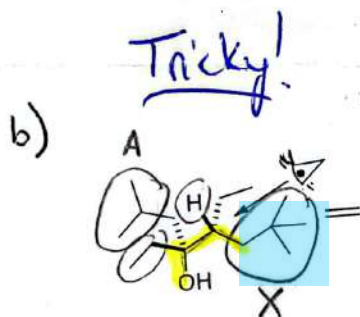
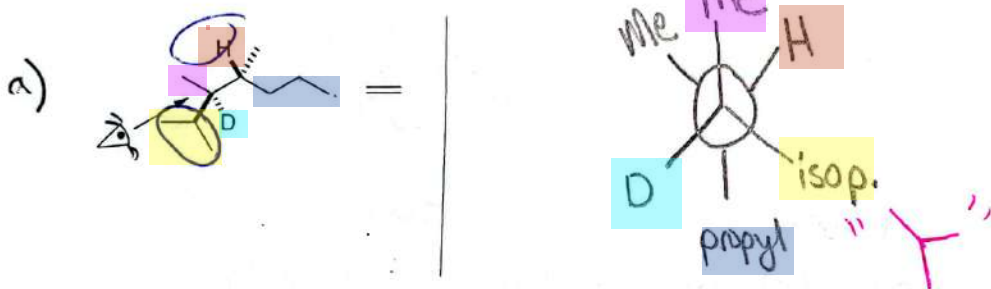


5) 2-chloro-2-methylpentane, relative to the C2-C3 bond.

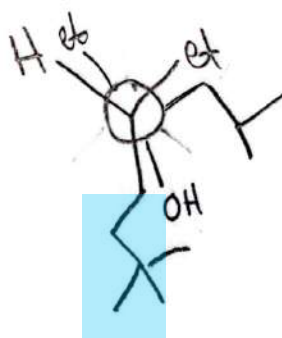


Key

6) Draw the Newman projection from the wedge & dash drawing.



LeAST



7) Draw the wedge/dash projection and try to name the compounds.

