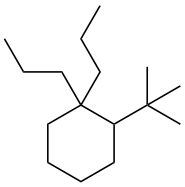
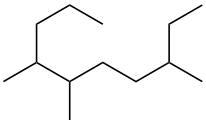
CHEM 2511 (Myers) Quiz 2 September 22, 2025 Name Key

1. (10 points) Provide IUPAC names for the following compounds.

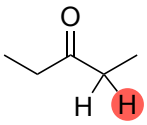


2-(*tert*-butyl)-1,1-dipropylcyclohexane

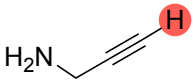


3,6,7-trimethyldecane

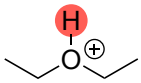
2. (12 points) For each of the compounds below 1) circle or draw in the most acidic hydrogen
2) enter an approximate pKa value



20



25



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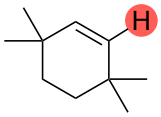
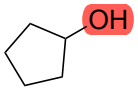
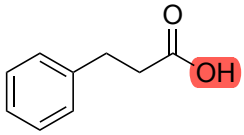


43

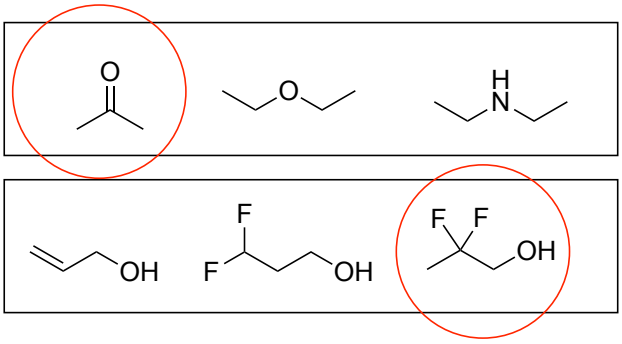


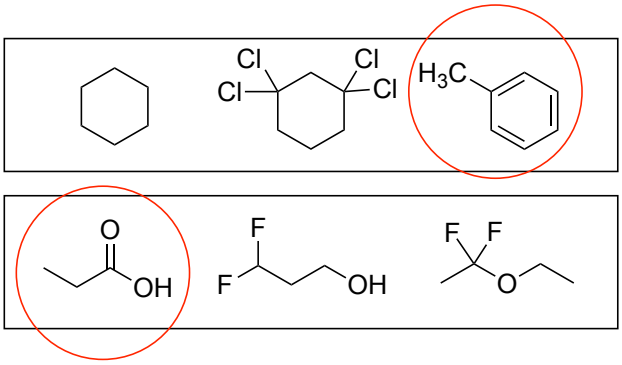
16



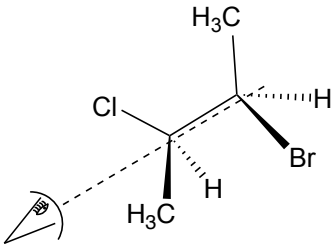
5

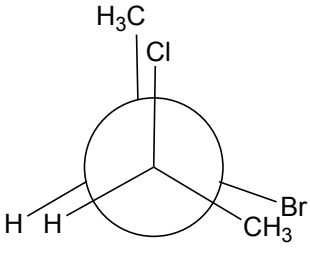
3. (4 points) Circle the most acidic compound in each box.



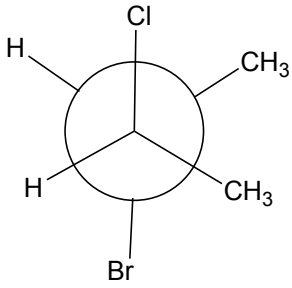


4. (8 points) **A)** Complete the Newman projection along the indicated bond for the structure given below. Use the conformation that is shown. Then, finish the 2 other Newman projections to show the conformation where the methyls are **B)** gauche and and **C)** anti.

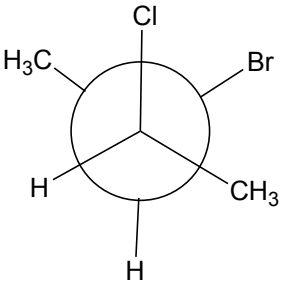




reproduce the structure at left



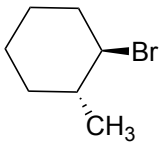
methyls gauche

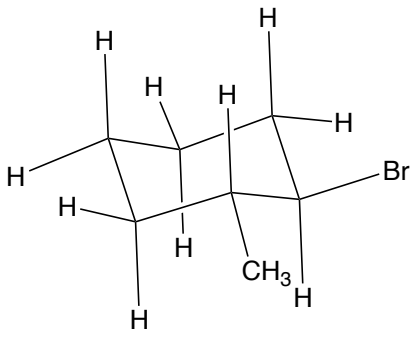


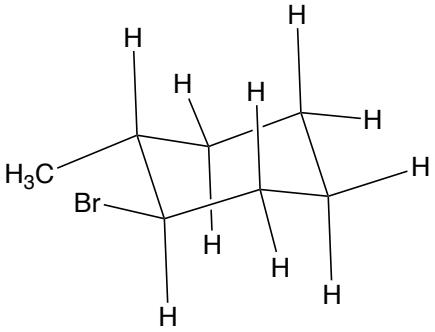
methyls anti

5. (8 points) Draw your very best rendition of the structure below as a chair confomation. Being sure to do the following:

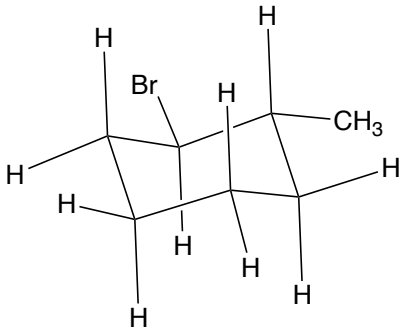
1. Draw in all bonds to all hydrogens on the cyclohexane ring.
2. Place the methyl group in an equatorial position.
3. The bromo group needs to be in the appropriate equatorial/axial position relative to the methyl.
4. The drawn structure needs to be the one shown not its mirror image or a constitutional isomer.

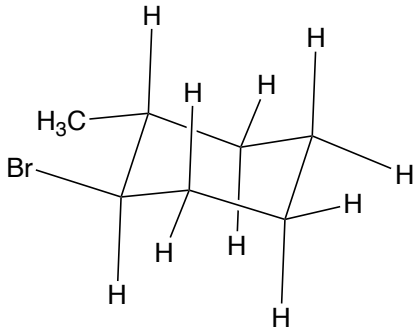


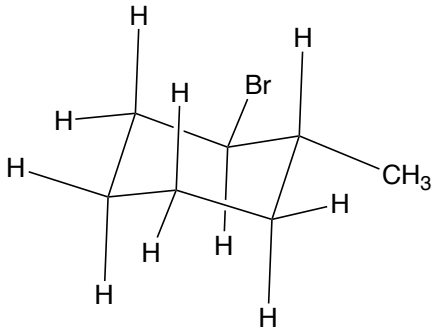




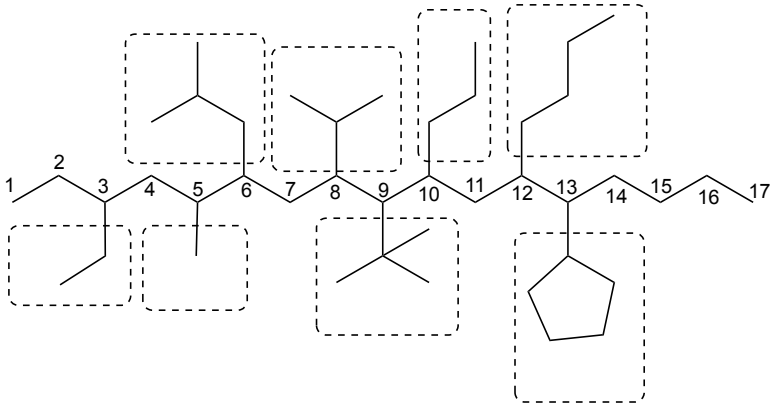
These are all the same structure







6. (8 points) Finish the name of the stucture by adding the locants for each of the groups.



[9]-(*tert*-butyl)-[12]-butyl-[13]-cyclopentyl-[3]-ethyl-[6]-isobutyl-[8]-isopropyl-[5]-methyl-[10]-propylheptadecane