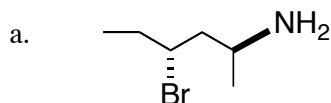
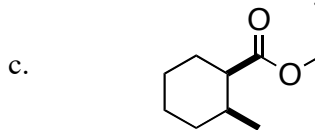


Fall 2008
Homework #2
KEY

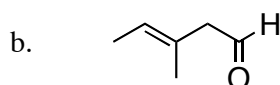
1. (8 points) Write the correct IUPAC name for each of the following:



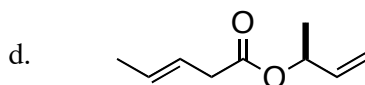
(2S, 4R)-4-bromo-2-hexanamine



methyl (1R, 2S)-2-methylcyclohexanecarboxylate



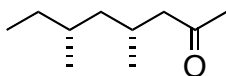
(3E)-3-methyl-3-pentenal



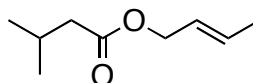
(1S)-1-methyl-2-propenyl (3E)-3-pentenoate

2. (8 points) Draw the structure corresponding to the name given. Please show all stereochemistry clearly.

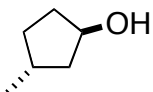
a. (4R, 6R)-4,6-dimethyl-2-octanone



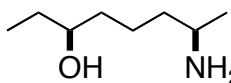
c. (2E)-2-butenyl 3-methylbutanoate



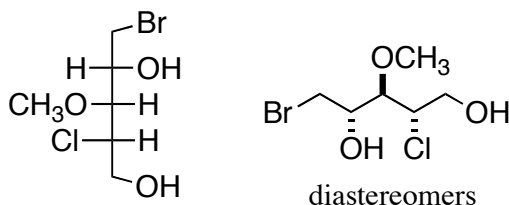
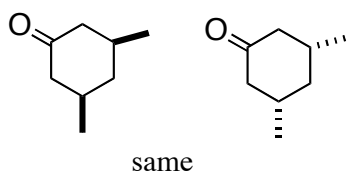
b. (1R, 3R)-3-methylcyclopentanol



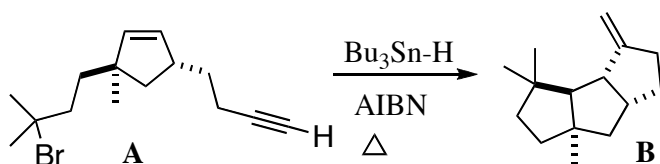
d. (3S, 7R)-7-amino-3-octanol



3. (8 points) For each pair, indicate whether they are diastereomers, enantiomers or the same.



4. (6 points) Draw a detailed arrow-pushing mechanism (other side) for the transformation of **A** to **B**.



4. (6 points) Draw a detailed arrow-pushing mechanism (other side) for the transformation of **A** to **B**.

