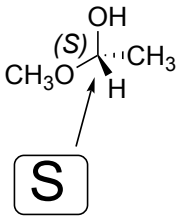
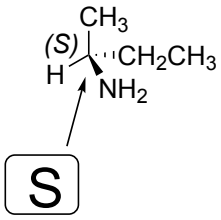
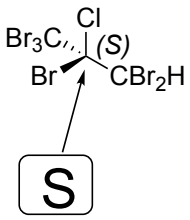
CHEM 2511 (Myers) Quiz 3 October 2, 2024 Name Key

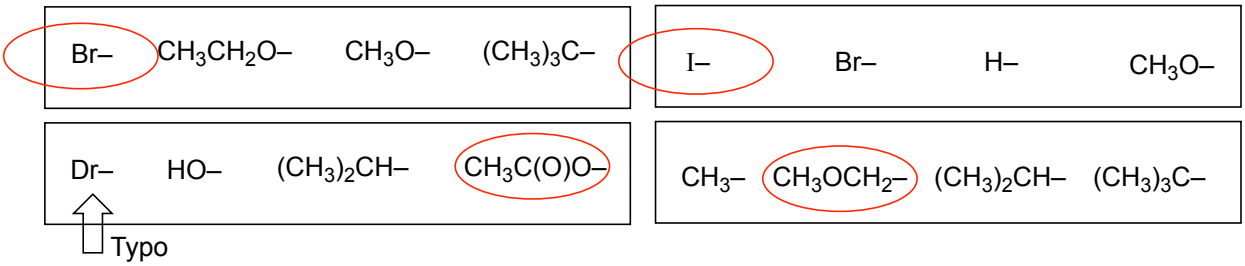
1. (6 pts) Assign the absolute stereochemical configuration (***R*** or ***S***) for each of the indicated stereogenic centers.



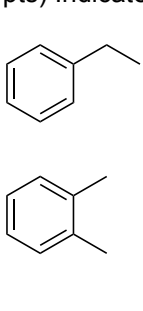



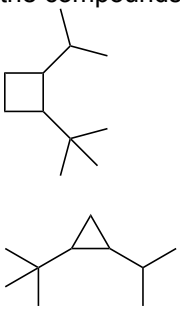

2. (4 pts) In assigning absolute stereochemistry, one needs to rank groups. For each series below, circle the highest ranking group.



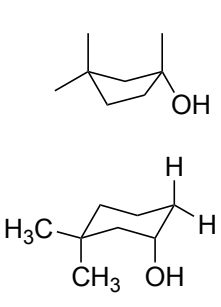

3. (10 pts) Indicate whether the compounds pairs below are unrelated or constitutional isomers



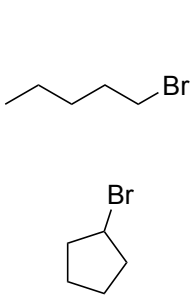
constitutional isomers



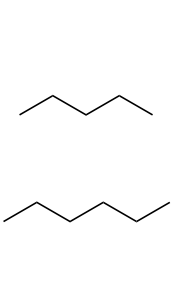
unrelated




constitutional isomers

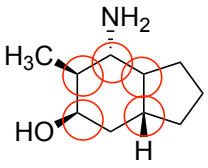



unrelated



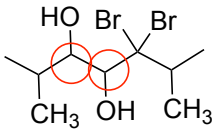
unrelated

4. (6 pts) Provide the number of tetrahedral stereocenters and stereoisomers for each of the compounds below. You will likely find it helpful to circle the the stereocenters. Beware of tricks—After all, it is the month of Halloween.




Tetrahedral Stereocenters 5

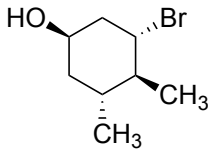
Stereoisomers 32

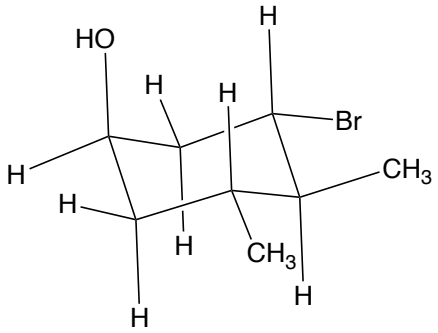



Tetrahedral Stereocenters 2

Stereoisomers 4

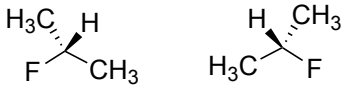
5. (10 pts) Draw the lowest energy chair of the following cyclohexane.



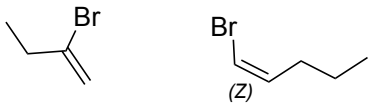




6. (15 pts) For each pair of compounds, label the pair as

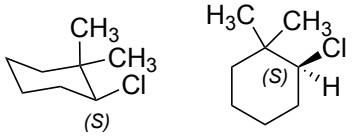
unrelated
constitutional isomers (const.)
enantiomers (enant.)
~~diastereomers (diast.)~~
identical molecules (Ident.)
Note: diastereomers is not an option today



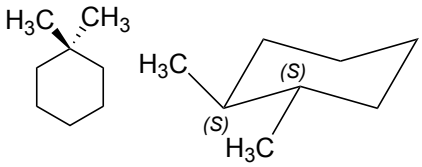

identical



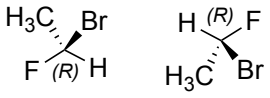

unrelated




identical




constitutional isomers




identical