

Stereochemistry

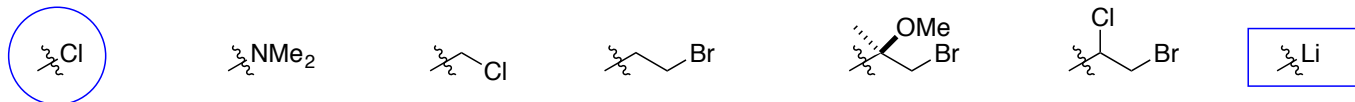
from chapter(s) _____ in the recommended text

A. Introduction

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B. Priority Rules

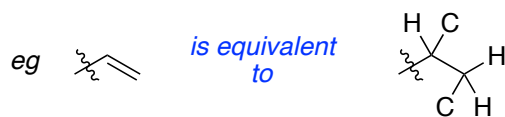
higher atomic mass takes priority.

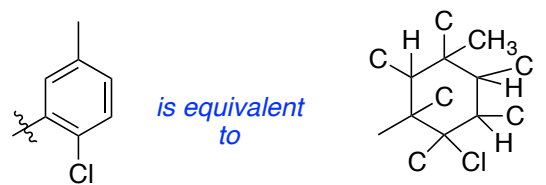
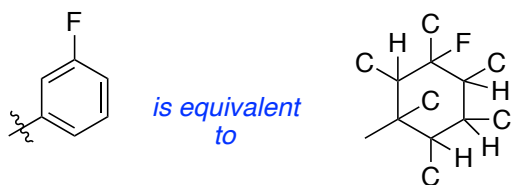
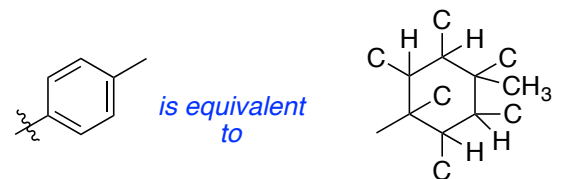
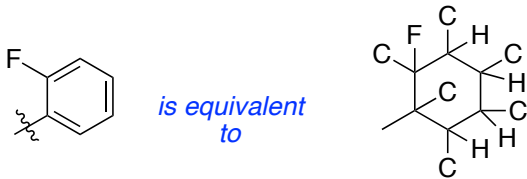


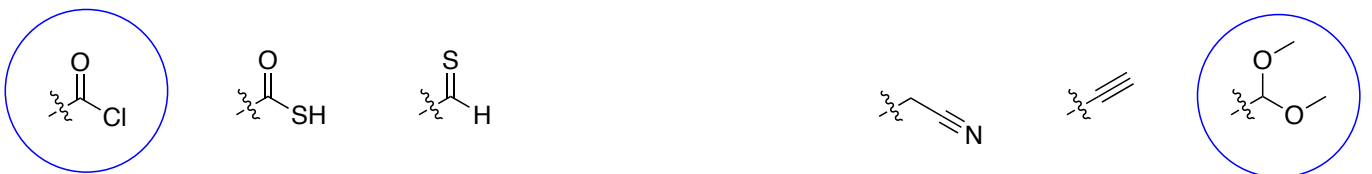
Substituents Connected Multiple Bonds



The problem is: the first atom of the substituents is the same for every molecule.

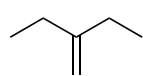




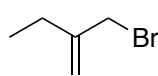


C. Classifying Alkene Geometries

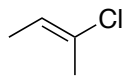
means the same as E / Z.



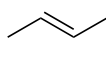
na



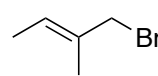
na



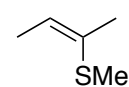
E-



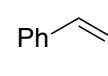
E-



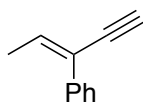
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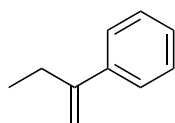
Z-



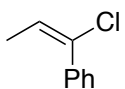
Z-



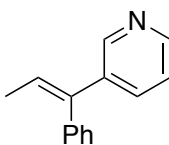
Z-



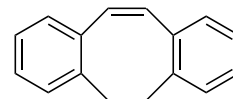
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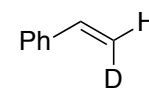
E-



E-



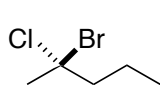
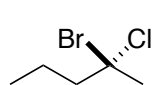
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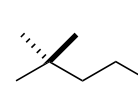
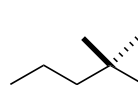
Z-

D. Chiral Centers

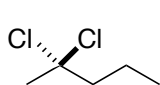
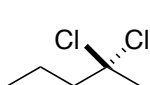
eg



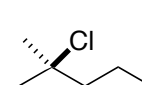
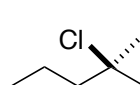
yes / no



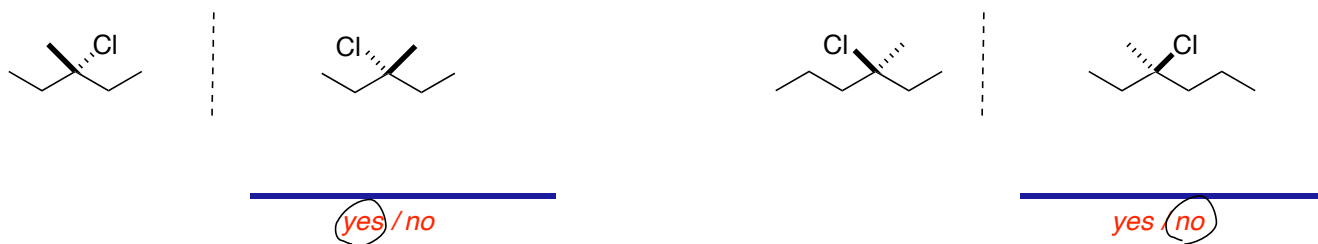
yes / no



yes / no

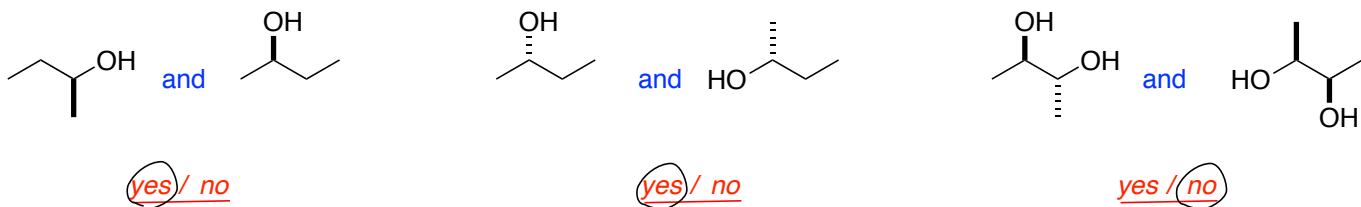
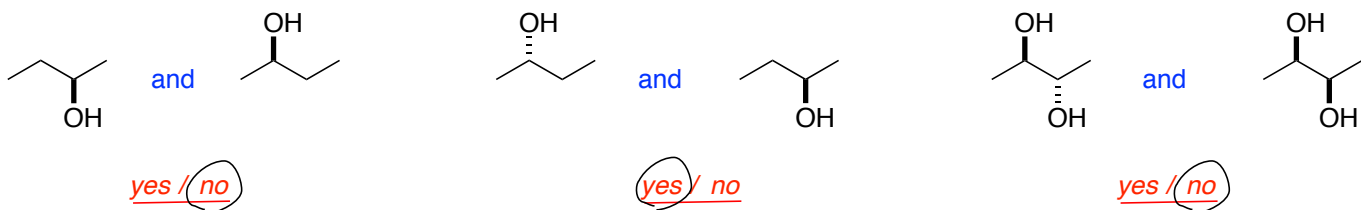
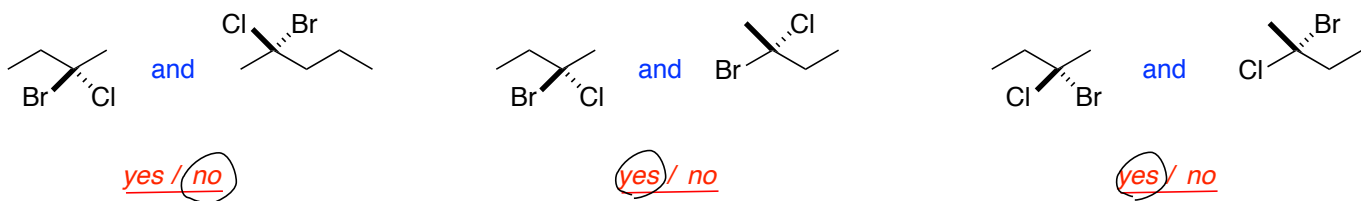
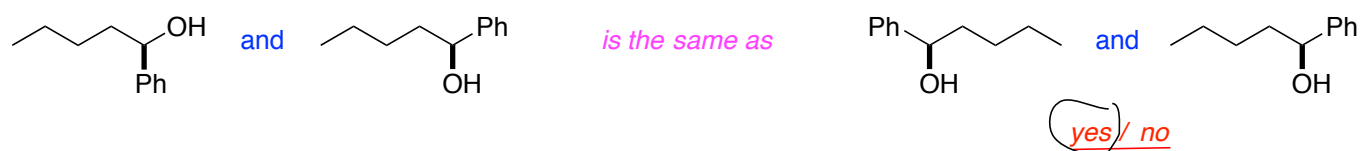


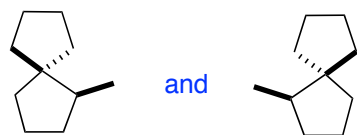
yes / no



do not absolutely (remove) require that there be four different groups on a carbon atom.
enantiomers, regardless of whether

eg





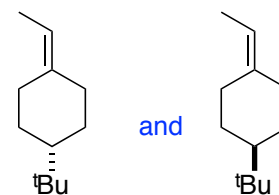
and

yes / no



and

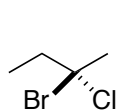
yes / no



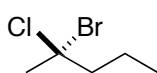
and

yes / no

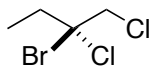
can



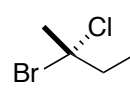
R / S



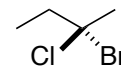
R / S



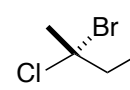
R / S



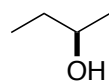
R / S



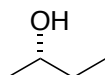
R / S



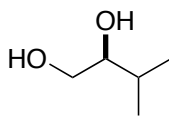
R / S



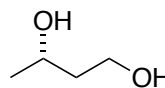
R / S



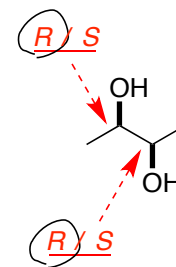
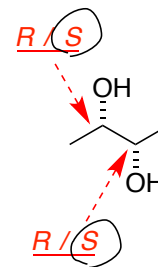
R / S



R / S



R / S



always S-
 always S,S-
 an S,S-configuration.

do

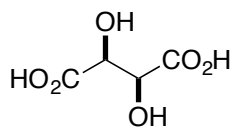
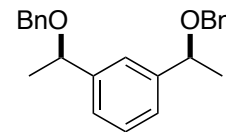
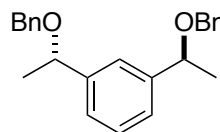
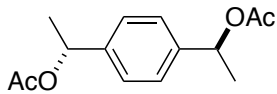
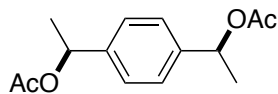
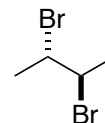
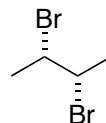
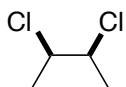
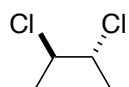
optical rotation,
compound concentration / temperature / wavelength of the light / solvent.

E. Combinations Of Chiral Centers

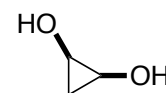
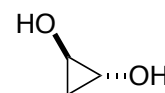
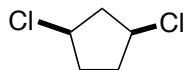
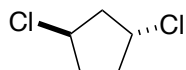
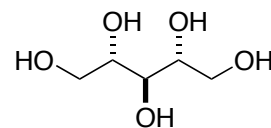
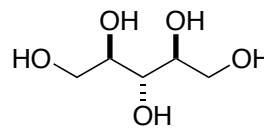
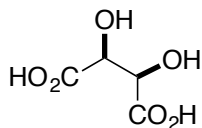
Meso-compounds *have*

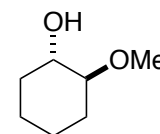
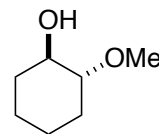
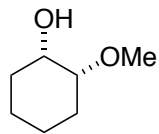
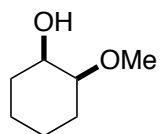
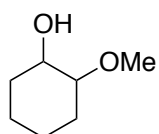
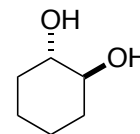
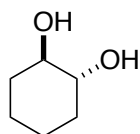
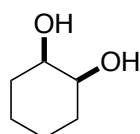
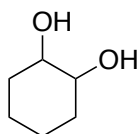
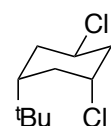
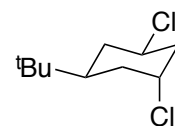
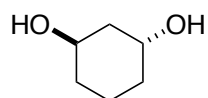
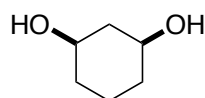
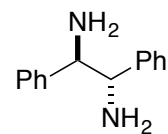
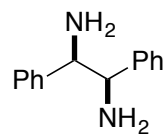
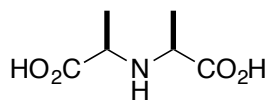
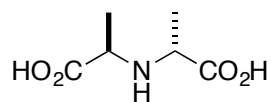
do not rotate

true



tartaric acid

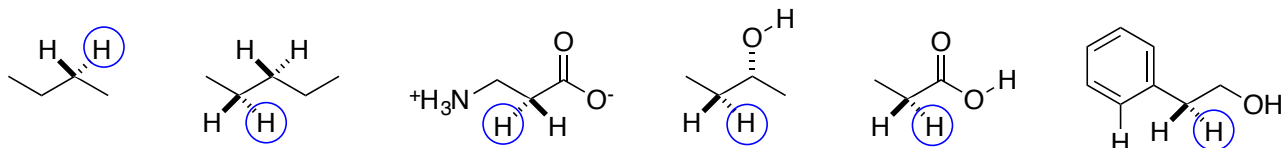
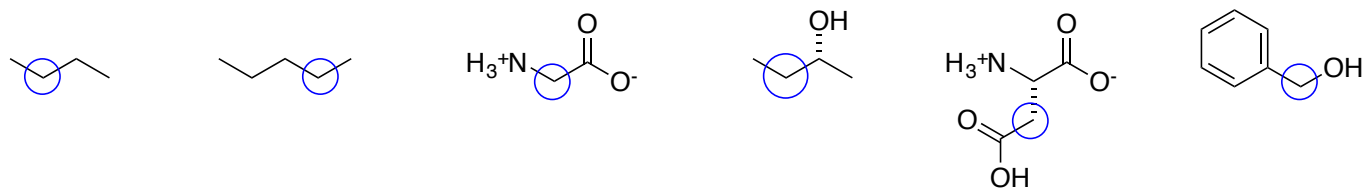




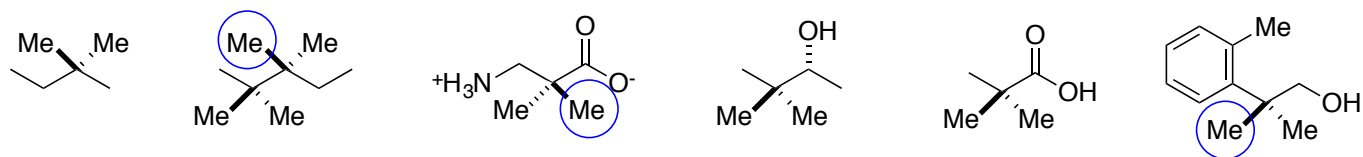
F. Prochirality

do not

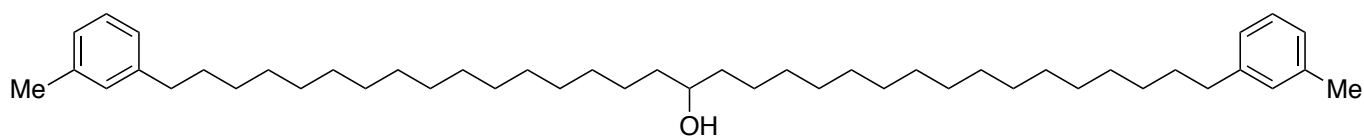
true.



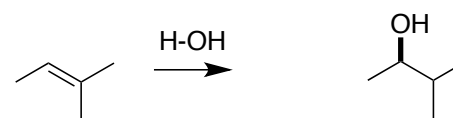
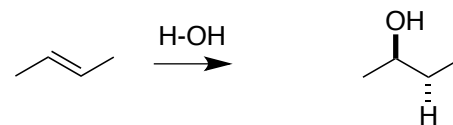
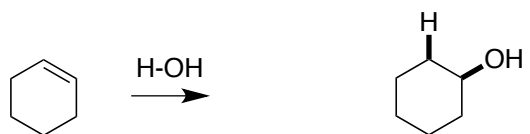
all *pro-R*.



are all *pro-S*.

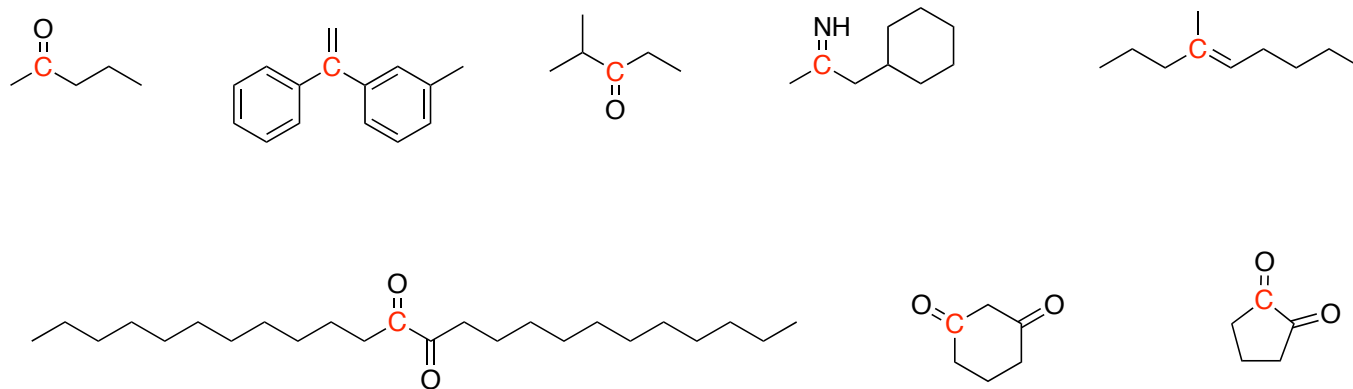


are prochiral.

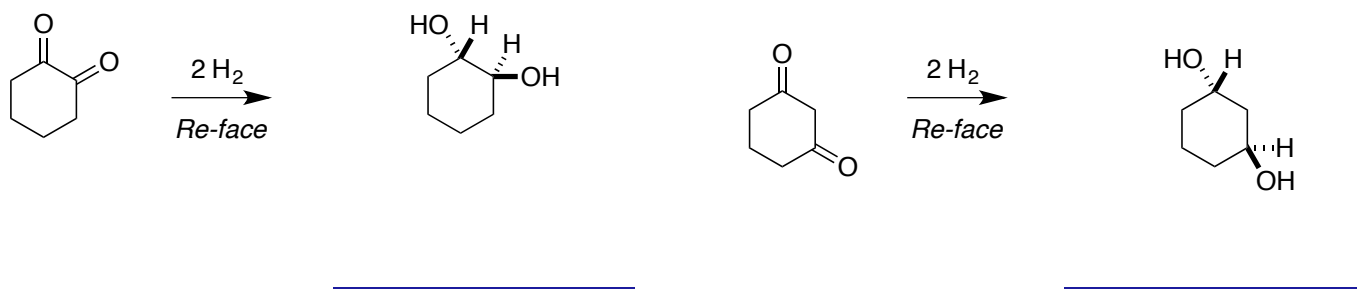
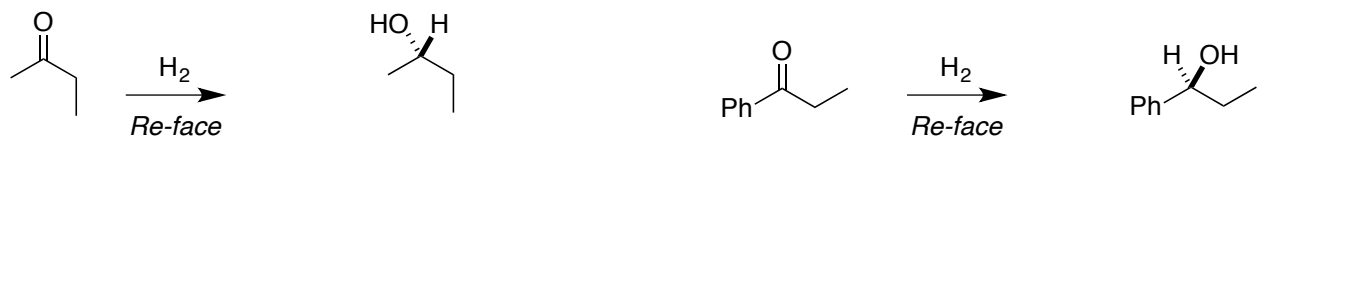
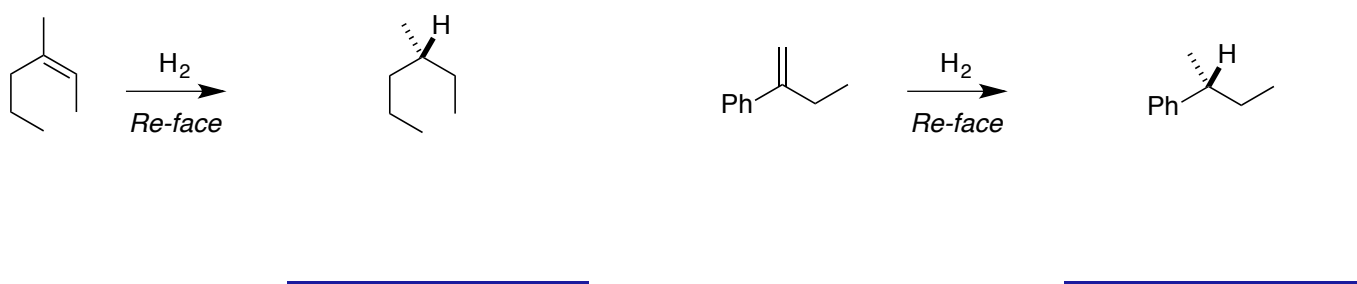
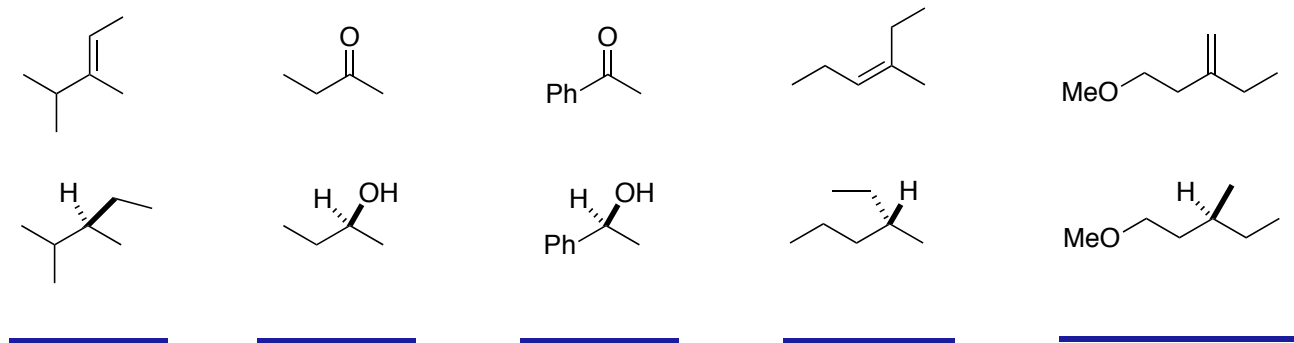


true.

all Re-



all Si-



sometimes gives the *R*-chiral
sometimes gives the *S*-chiral centers.