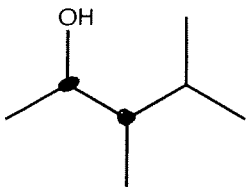
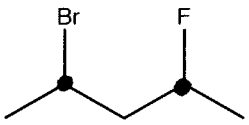
CHEM 234 – Stereochemistry 3

1) Draw structures for ***all*** of the possible stereoisomers for each of the following structures. *(Answer on a separate page.)*
   - Indicate any pairs of enantiomers.
   - Indicate any MESO compounds (if you have drawn two identical structures, clearly indicate that they are the same or cross one of them out.
   - Unless otherwise indicated the relationship between any two structures will be assumed to be diastereomers.

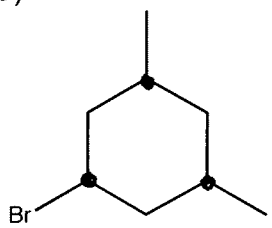
A)



B)



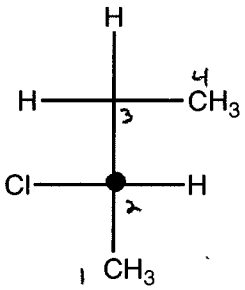
C)



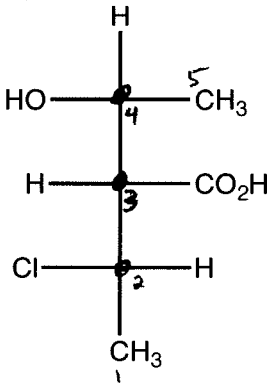
See following page

2) Convert the following Fischer projections to bond-line formulas, clearly showing stereochemistry.

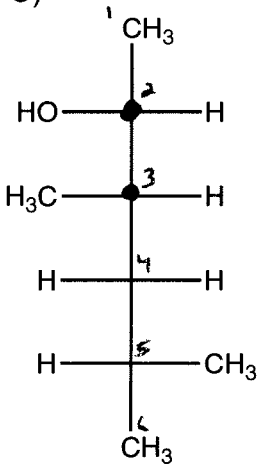
A)



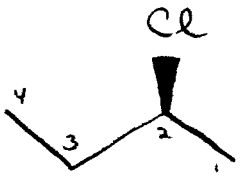
B)



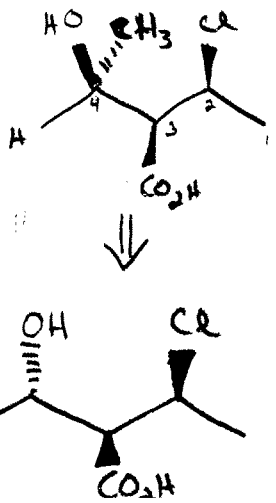
C)



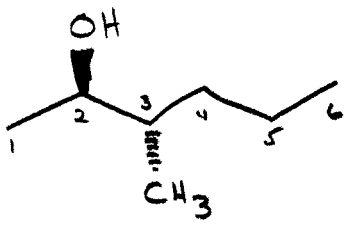
(A)

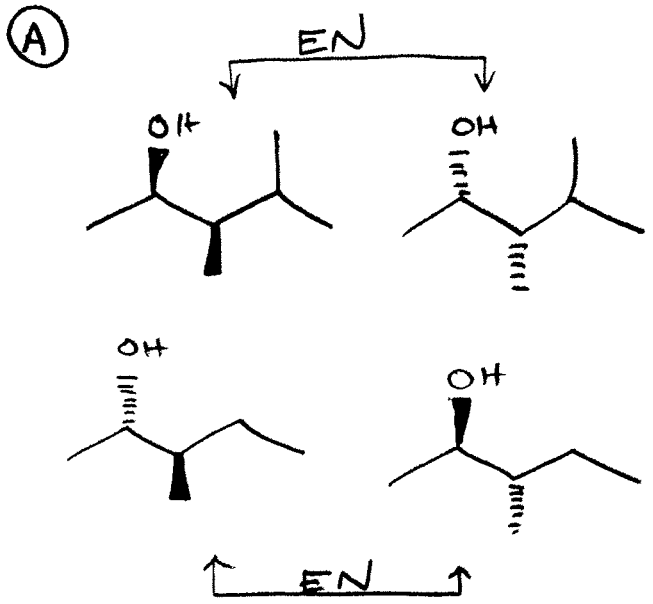


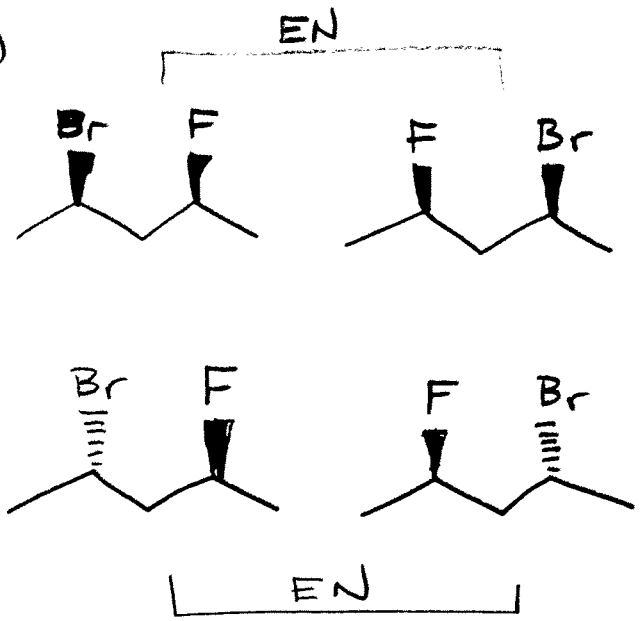
(B)

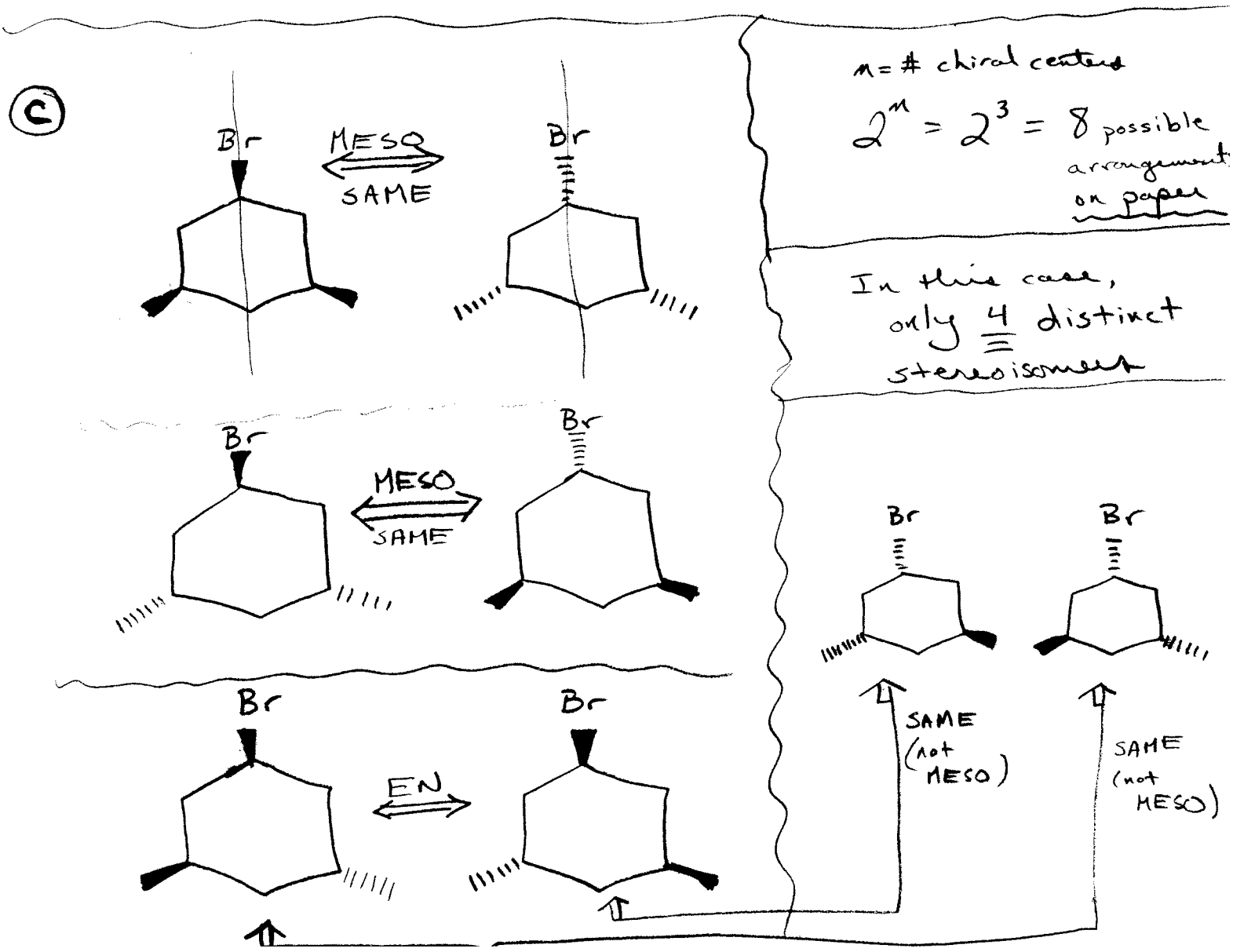


(C)




A
EN
OH
OH
OH
OH
EN


B
EN
Br
F
F
Br
Br
F
F
Br
EN


C
Br
MESO
SAME
Br
Br
MESO
SAME
Br
Br
EN
Br
n = # chiral centers
$2^n = 2^3 = 8$ possible arrangements on paper
In this case, only 4 distinct stereoisomers
Br
Br
SAME (not MESO)
SAME (not MESO)