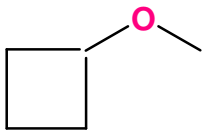
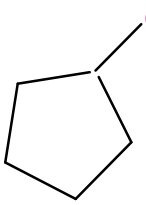
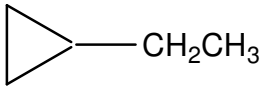
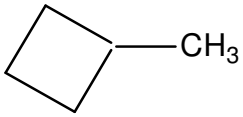
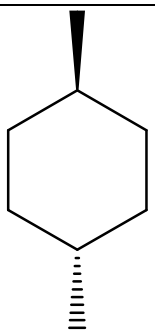
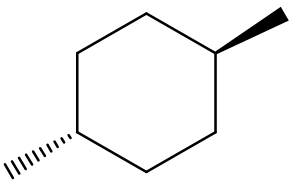
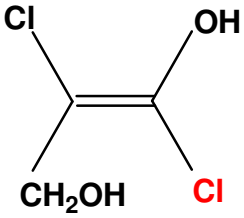
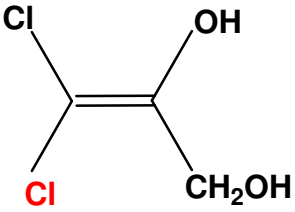
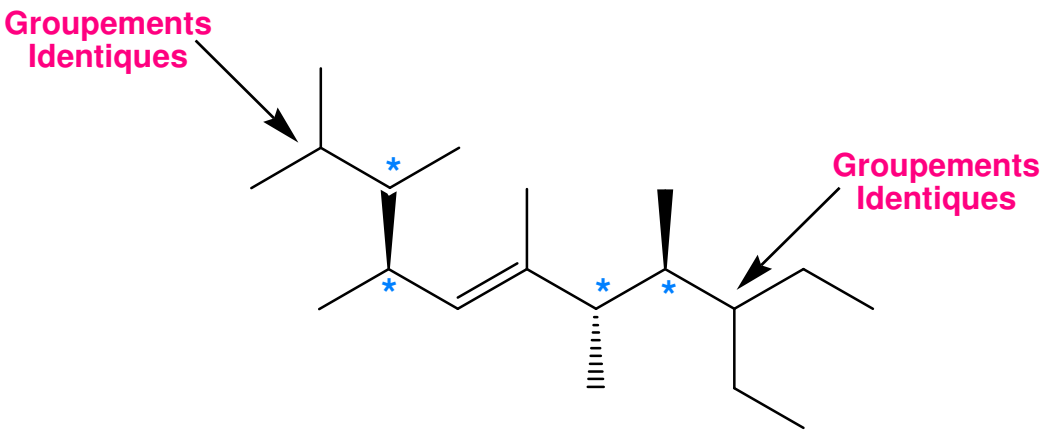
Correction des Travaux dirigés (2013-2014)

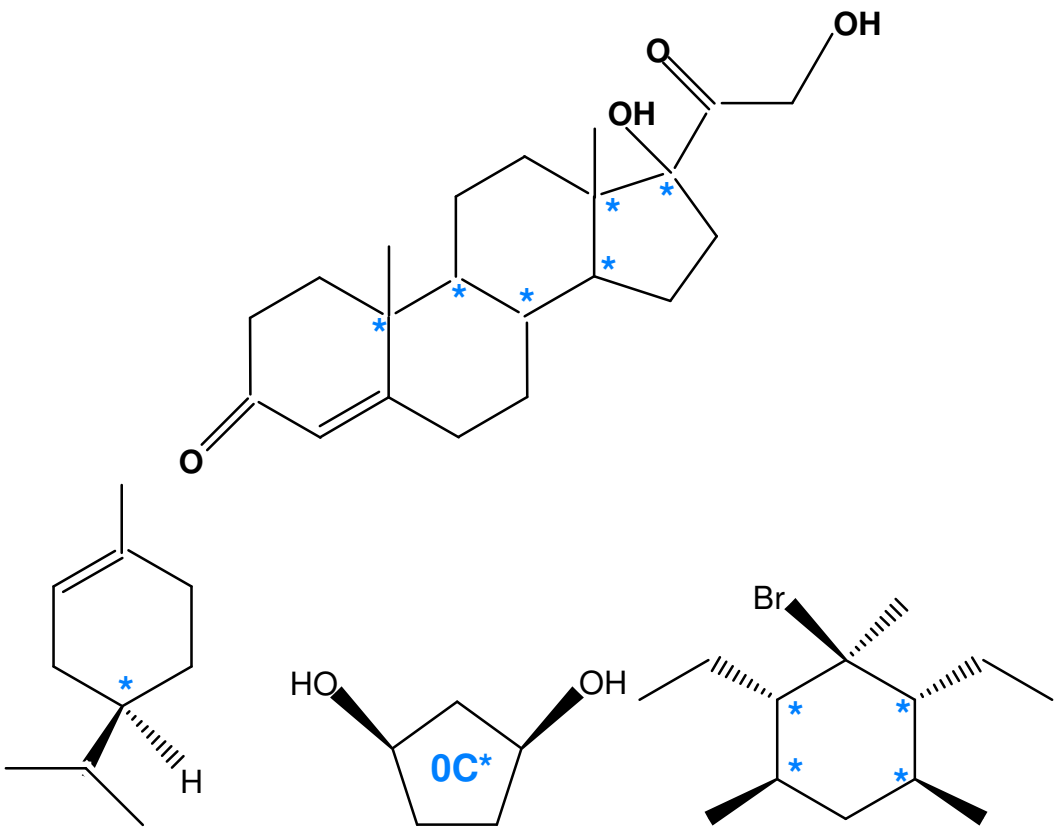
Exercice n°1

Quelle relation d'isomérie existe-t-il entre chaque paire de molécules ?

		**Isomères de fonction**
		**Isomères de chaîne**
		**Identiques**
		**Isomères de position**

Exercice n°2





Exercice n°3

Ordre de priorité selon les règles de Cahn-Ingold-Prelog :

1) $-CH=O > -CH_2OCH_3 > -CH_2OH > -CH_2CH=O > -CH_2CH_2OH$

2) $-CH_2I > -CHBr_2 > -CH_2Br > -CHCl_2 > -CH_2Cl$

3) $-Br > -CN > -CH_2CH_2OH > -CH_2CH_3 > -H$

4) $-OCH_3 > -OH > -COOCH_3 > -COOH > -CH_2OH$

5) $-NH_2 > -CN > -CH_2NHCH_3 > -CH_2NH_2 > -CH_3$

6) $-Br > -Cl > -CCl_3 > -CH_2Br > -CH_2Cl$

7) $-C_6H_5 > -C\equiv CH > -C(CH_3)_3 > -CH=CH_2 > -CH_3$

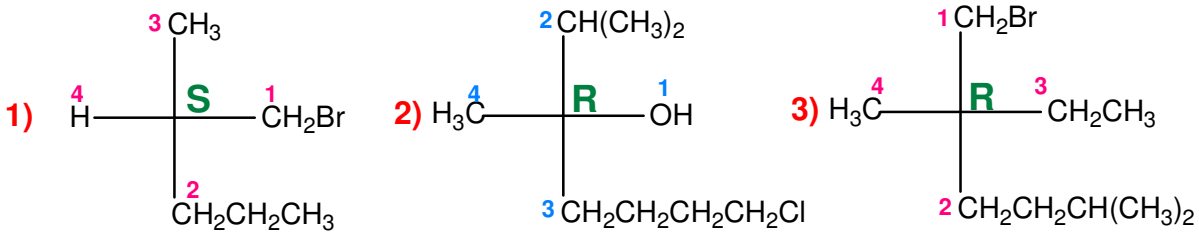
8) $-OCH_3 > -COOCH_3 > -COCH_3 > -CH_2OCH_3 > -CH_2CH_3$

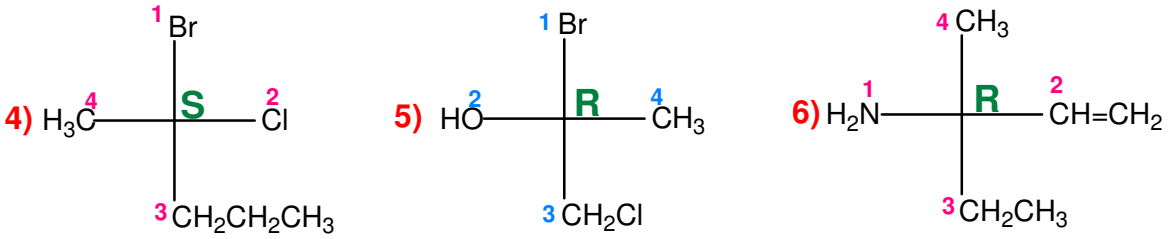
9) $-Br > -NH_2 > -CH_2Br > -CN > -CH_2CH_2Br$

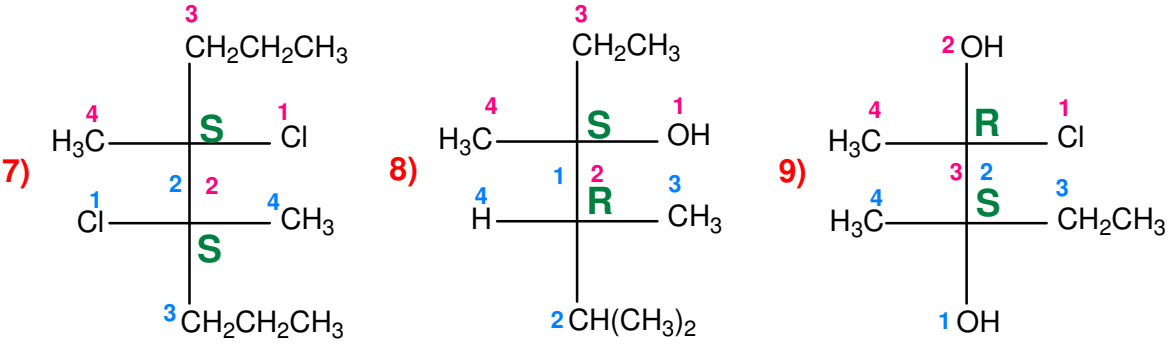
10) $-SH > -C(CH_3)_3 > -CH=CH_2 > -CH(CH_3)_2 > -CH_2CH_3$

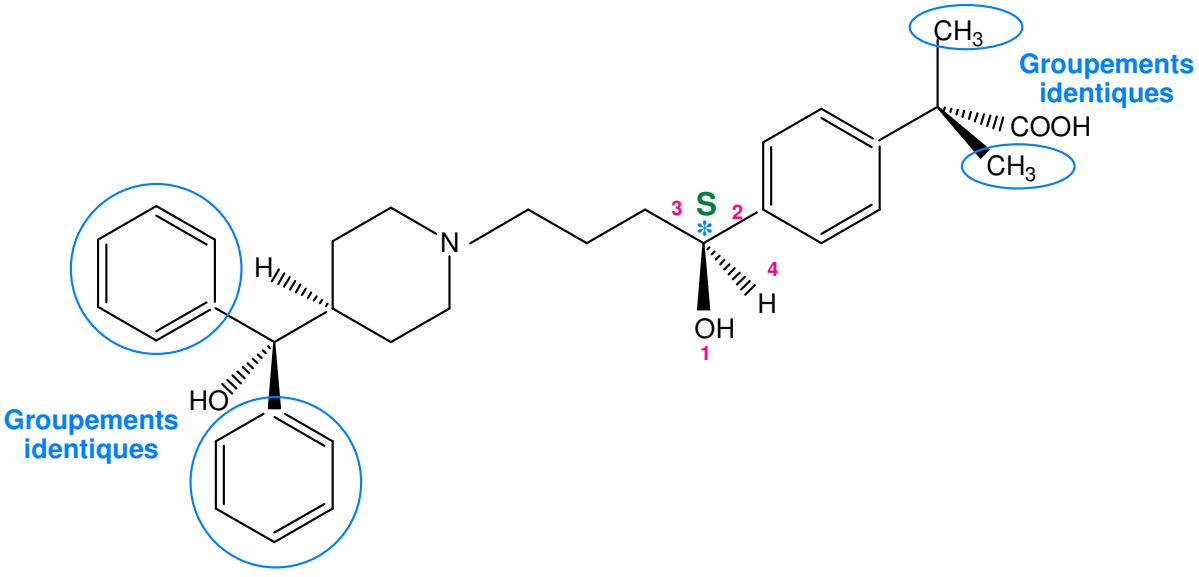
Exercice n°4

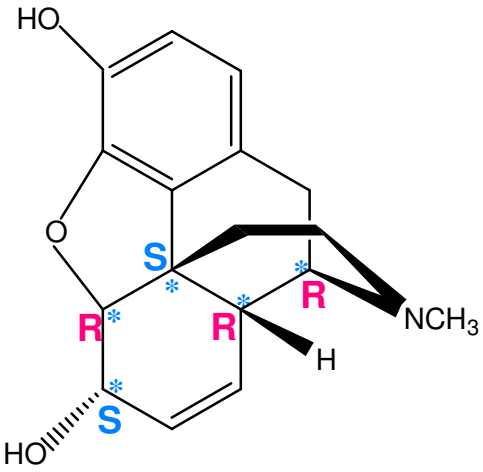
Configuration absolue des carbones asymétriques :

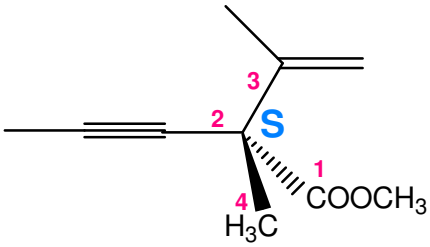




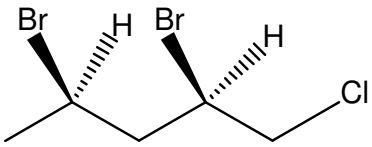




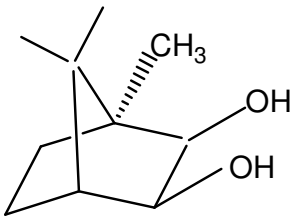




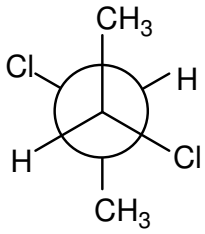
Exercice n°5



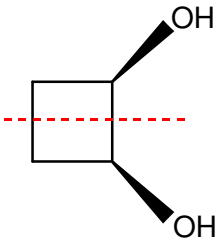
A
Chirale



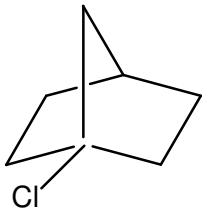
B
Chirale



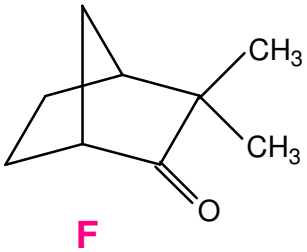
C
Achirale
Point de symétrie



D
Achirale
Plan de symétrie

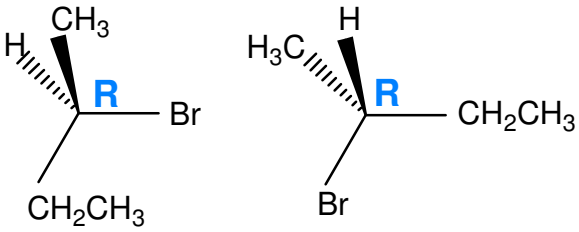


E
Achirale
Plan de symétrie

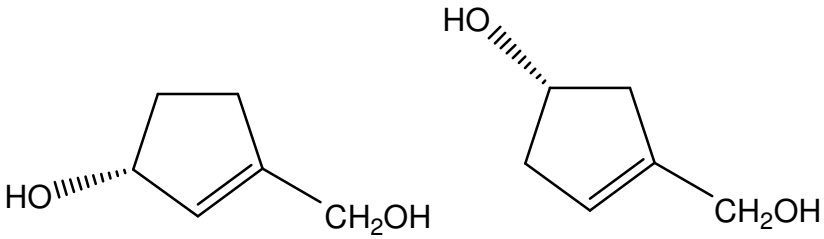


F
Chirale

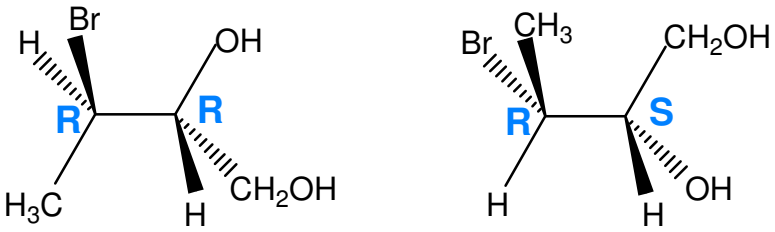
Exercice n°6



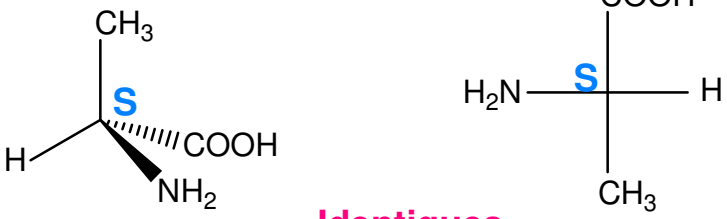
Identiques



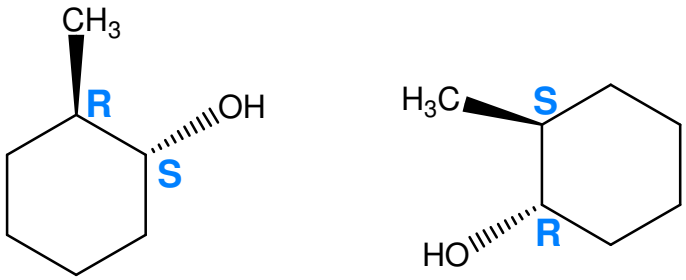
Isomères de Constitution



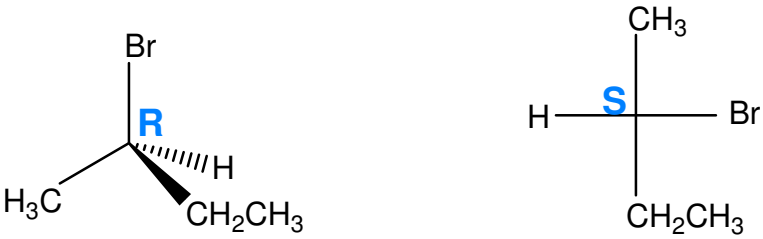
Diastéréoisomères



Identiques



Enantiomères



Enantiomères