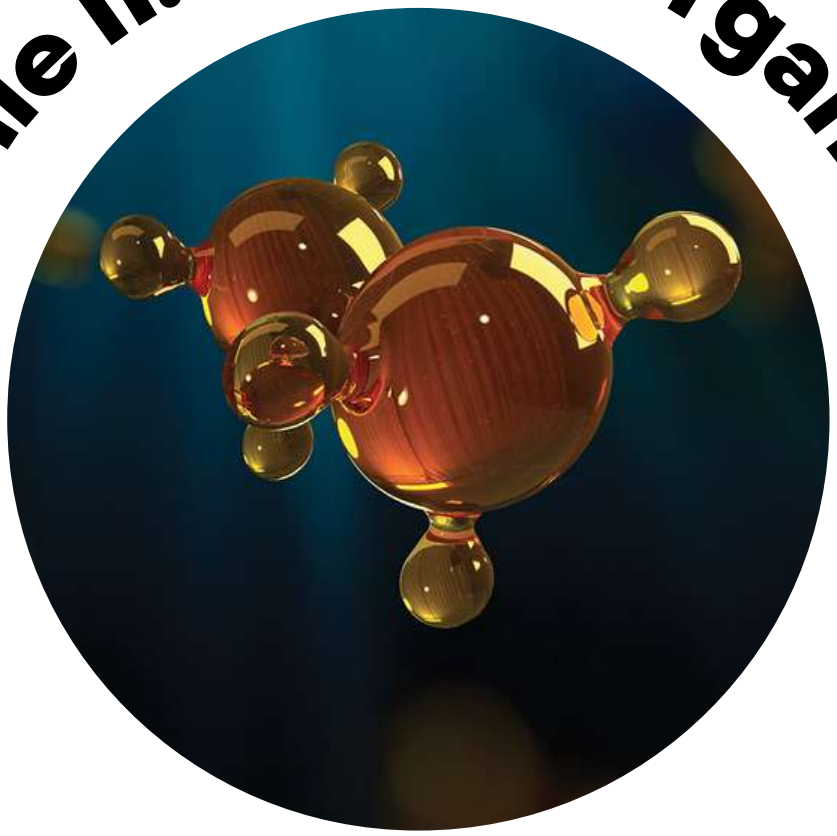
Chimie II: Chimie Organique

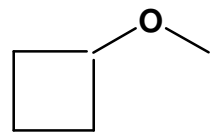
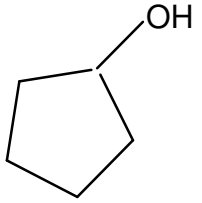
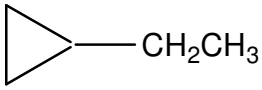
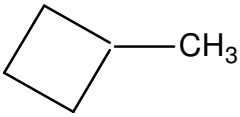
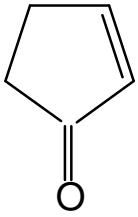
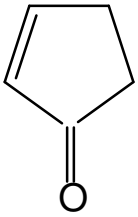
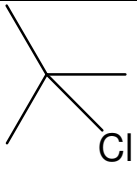
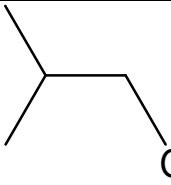
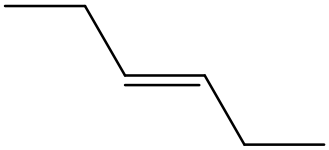
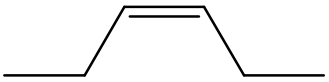


SCIENCES DE LA
VIE ET DE LA TERRE

Travaux dirigés (2015-2016)

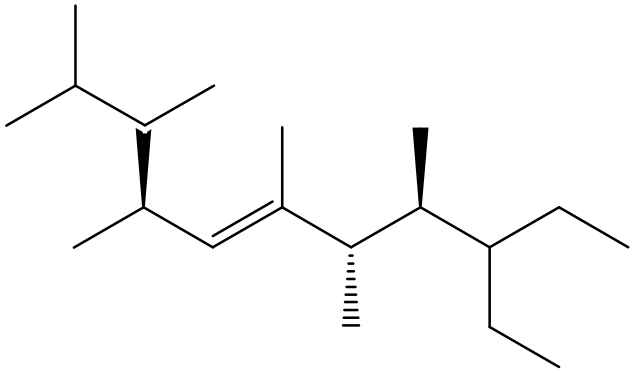
Exercice n°1

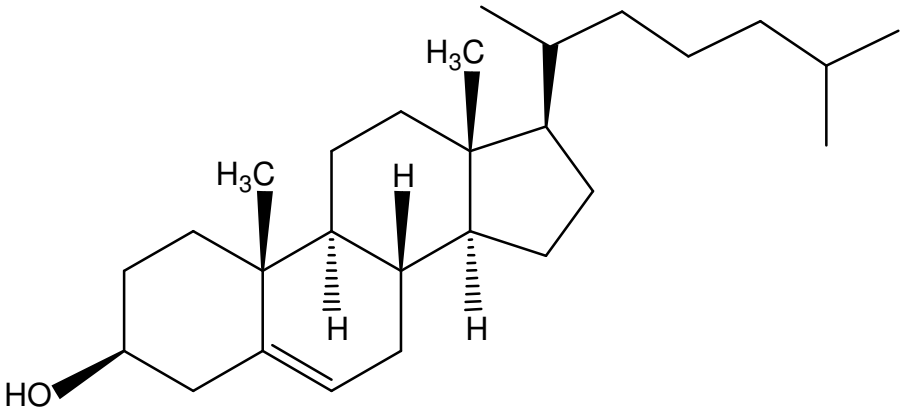
Quelle relation d'isomérie existe-t-il entre chaque paire de molécules ?

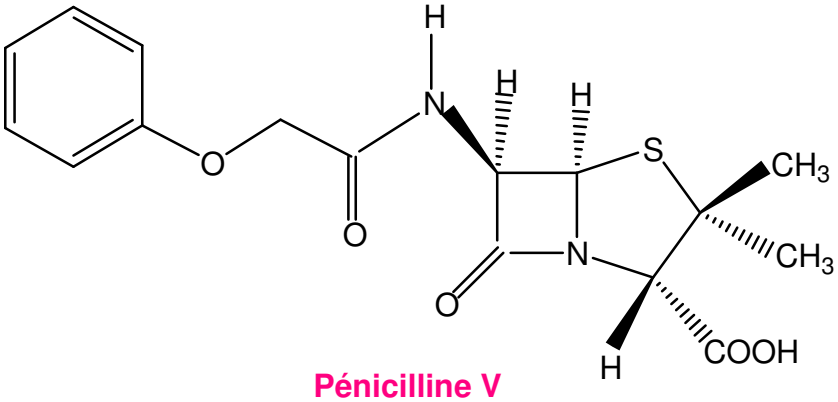
Exercice n°2

Combien de carbones asymétriques, les molécules suivantes possèdent-elles ?





Cholestérol

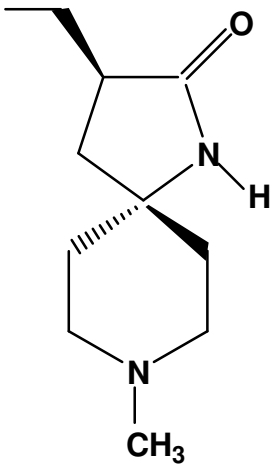


Pénicilline V

Exercice n°3

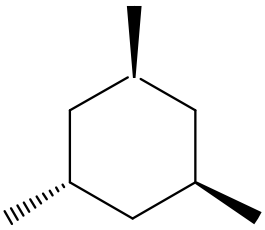
Soit la molécule suivante, utilisée comme traitement expérimental dans la maladie d'Alzheimer :

a) Donner la configuration absolue (R, S) des carbones asymétriques présents;
b) Dessiner l'énantiomère de la molécule.

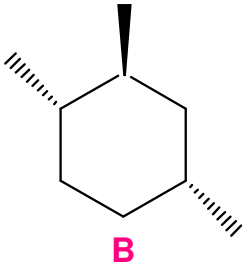


Exercice n°4

Les molécules suivantes sont-elle chirales ?



A



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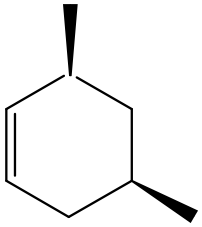
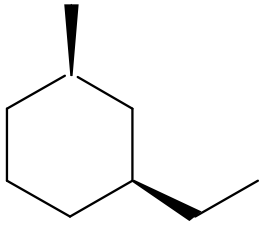


C



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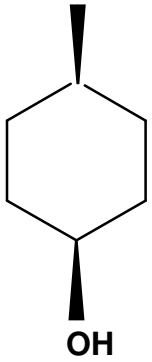

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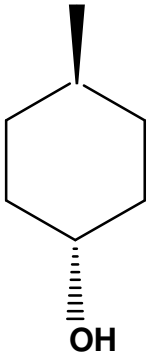

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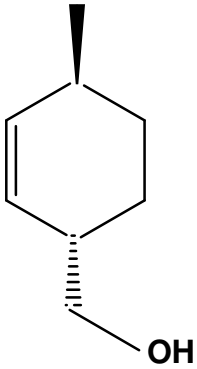

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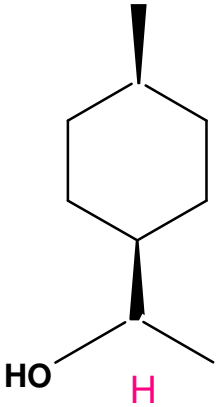
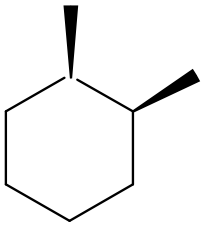
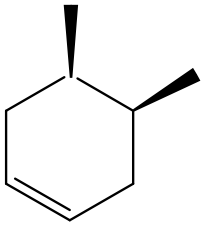


H



I



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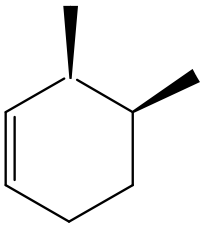

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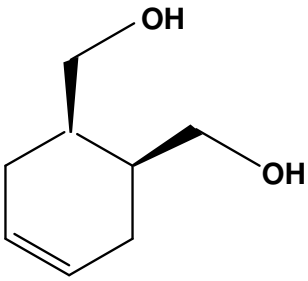
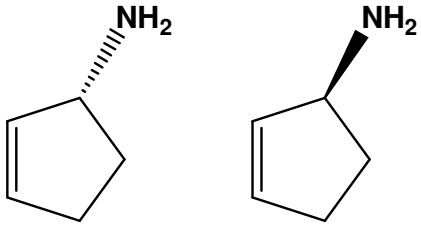


L

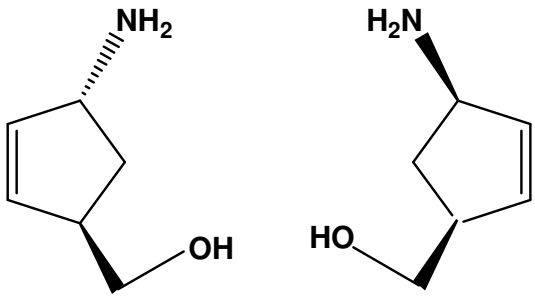
Exercice n°5

Quelle relation d'isomérie existe-t-il pour chaque paire de molécules ? **I** (**I**dentiques), **E** (**E**nantiomères), **D** (**D**iastéréoisomères), **C** (Isomères de **C**onstitution) :

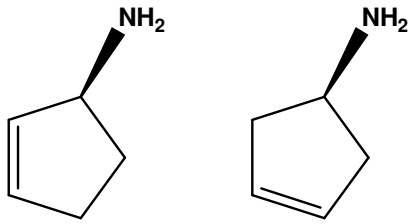
a)



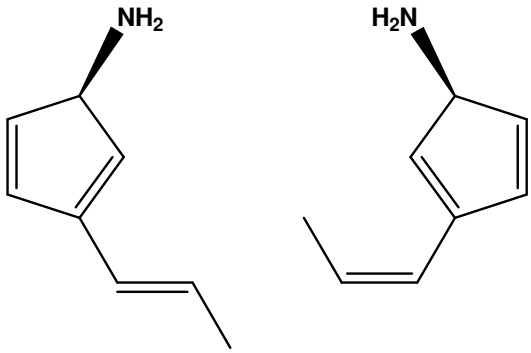
b)



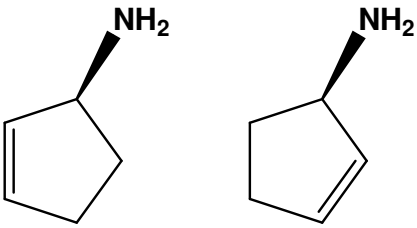
c)



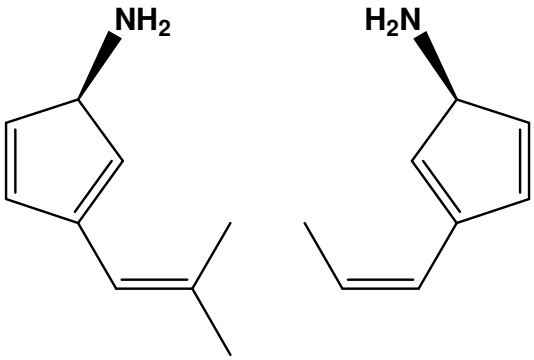
d)



e)

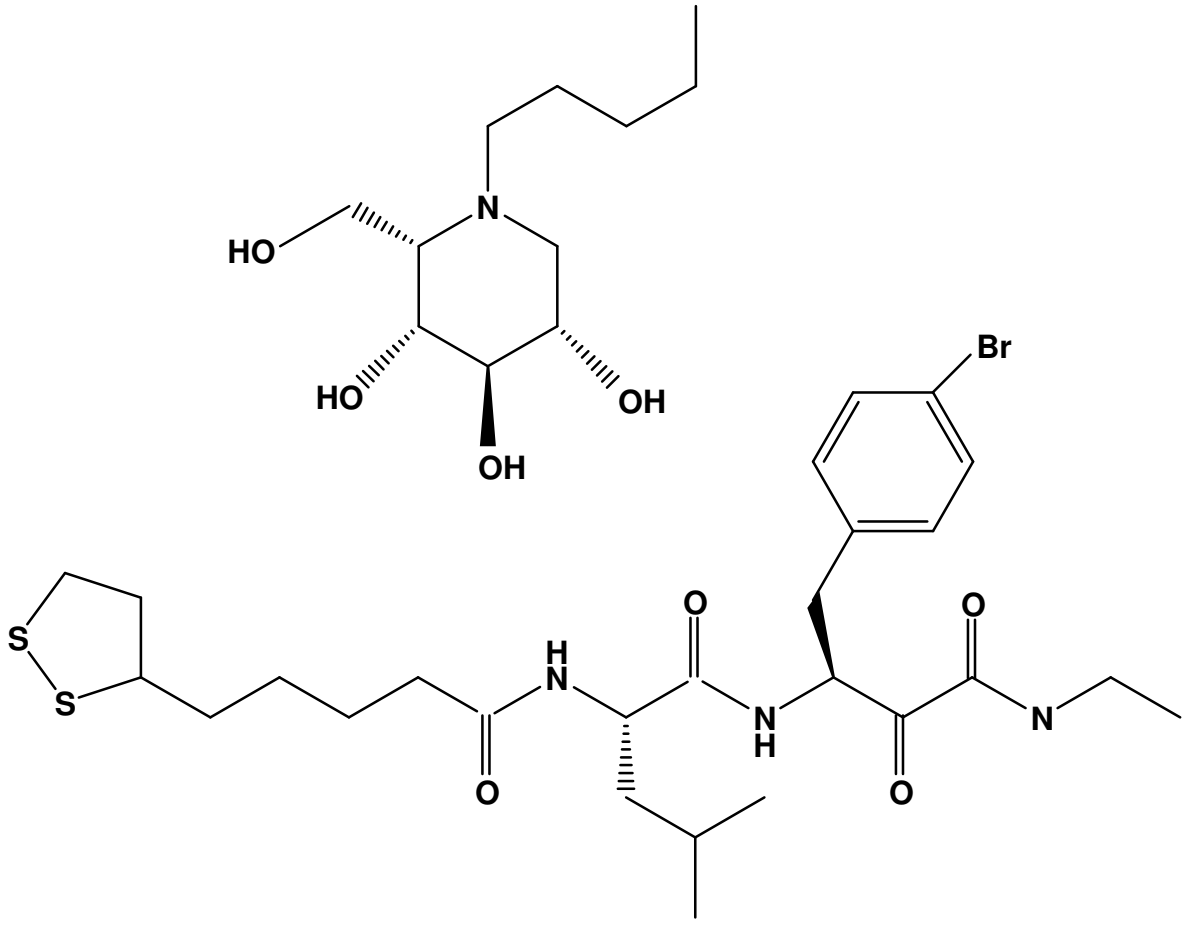


f)



Exercice n°6

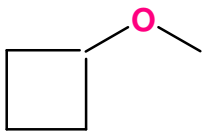
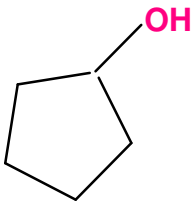
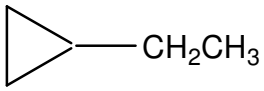
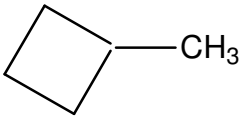
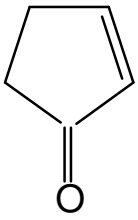
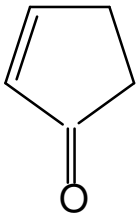
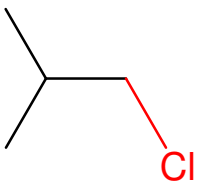
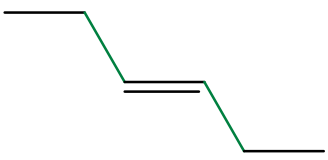
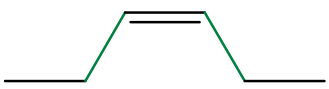
Donner la configuration absolue (R, S) des carbones asymétriques présents dans les 2 molécules suivantes :



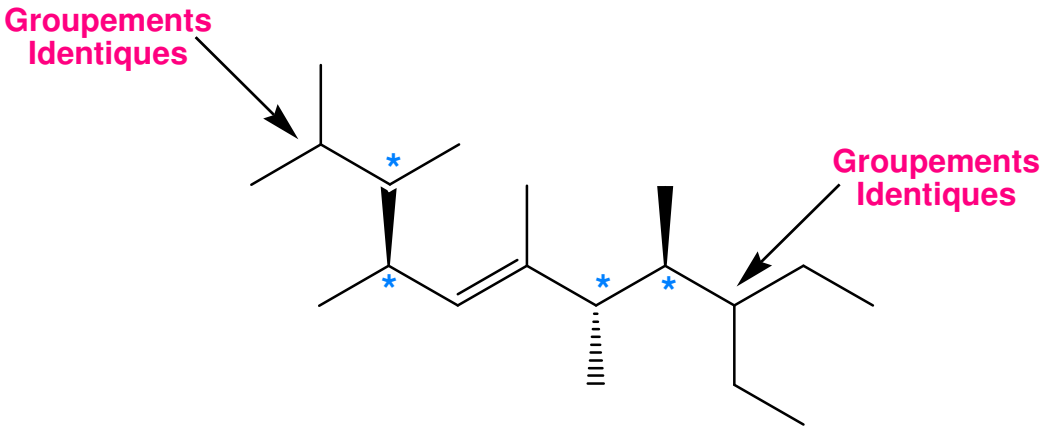
Correction des Travaux dirigés (2015-2016)

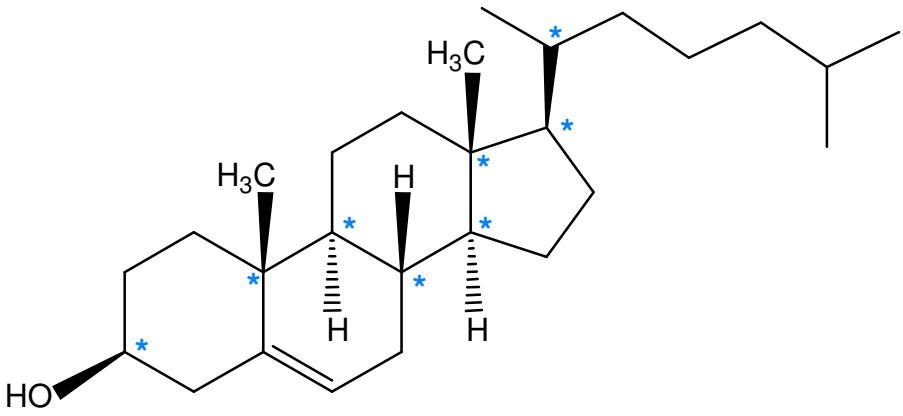
Exercice n°1

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

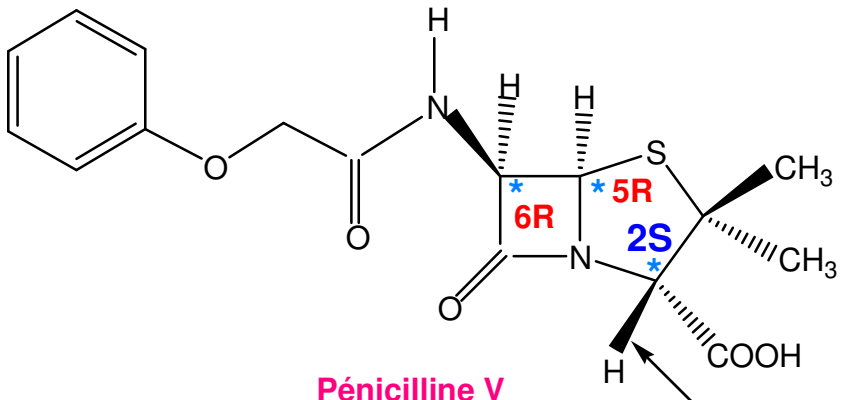
		**Isomères de fonction**
		**Isomères de chaîne**
		**Identiques**
		**Isomères de position**
		**Isomères géométriques**

Exercice n°2





Cholestérol
8 C*

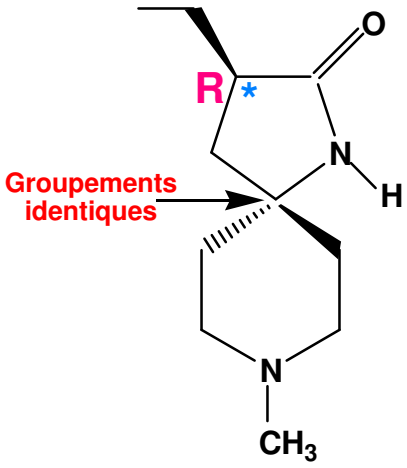


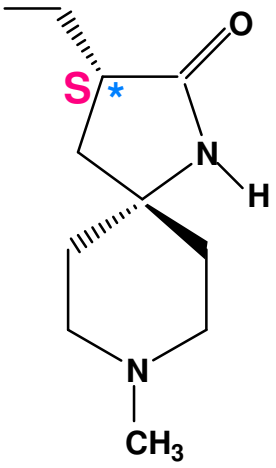
Pénicilline V
3C*

H devant

Exercice n°3

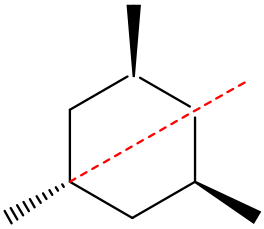
Configuration absolue : il y a 1 seul carbone asymétrique de configuration R ; son énantiomère a donc, la configuration S.





Enantiomère du médicament

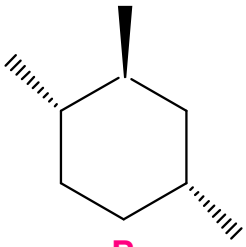
Exercice n°4



A

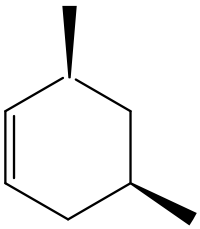
Achirale

(plan de symétrie)



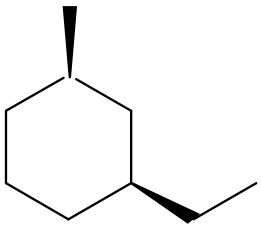
B

Chirale



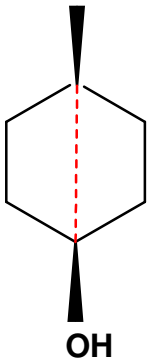
C

Chirale



D

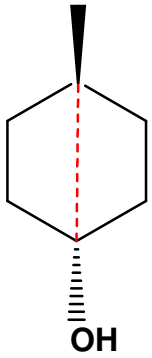
Chirale



E

Achirale

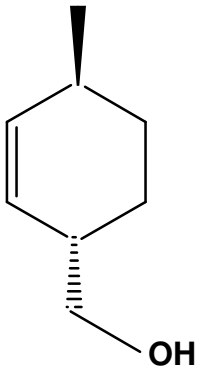
(plan de symétrie)



F

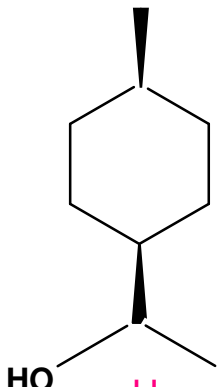
Achirale

(plan de symétrie)



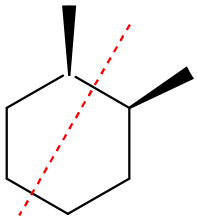
G

Chirale



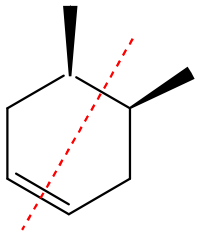
H

Chirale



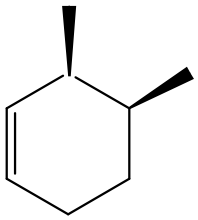
I

Achirale
(plan de symétrie)



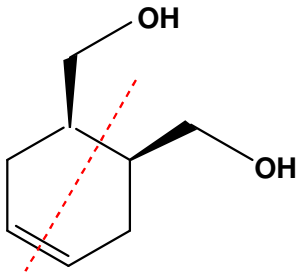
J

Achirale
(plan de symétrie)



K

Chirale

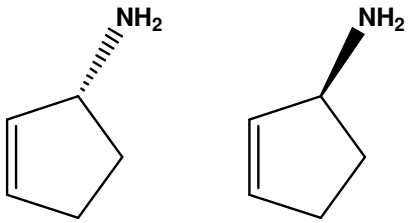


L

Achirale
(plan de symétrie)

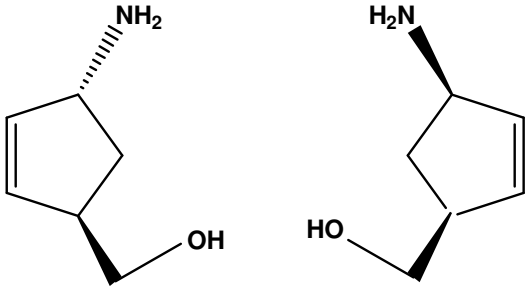
Exercice n°5

a)



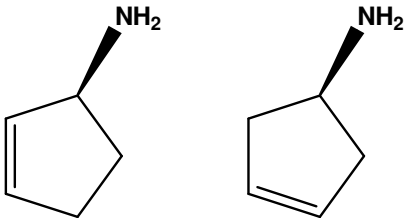
Enantiomères

b)



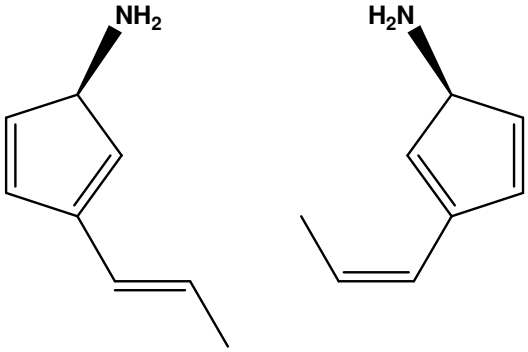
Diastéréoisomères

c)



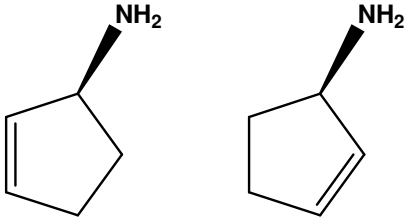
Isomères de Constitution

d)



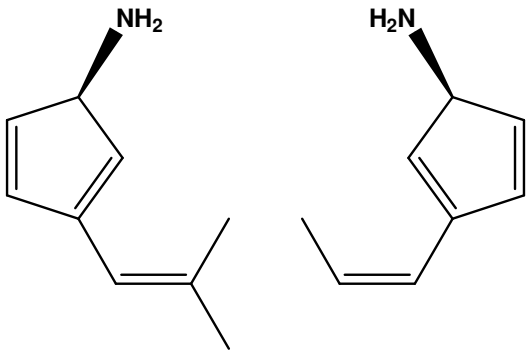
Diastéréoisomères

e)



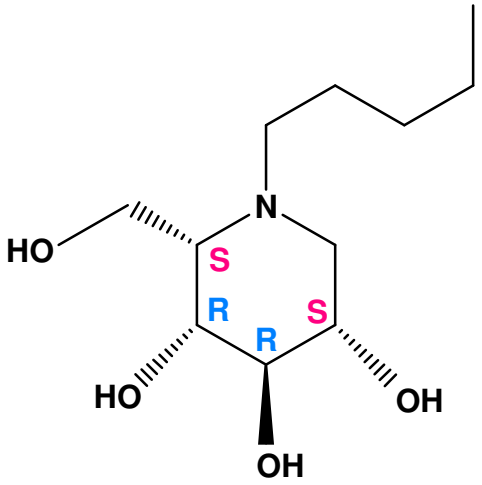
Identiques

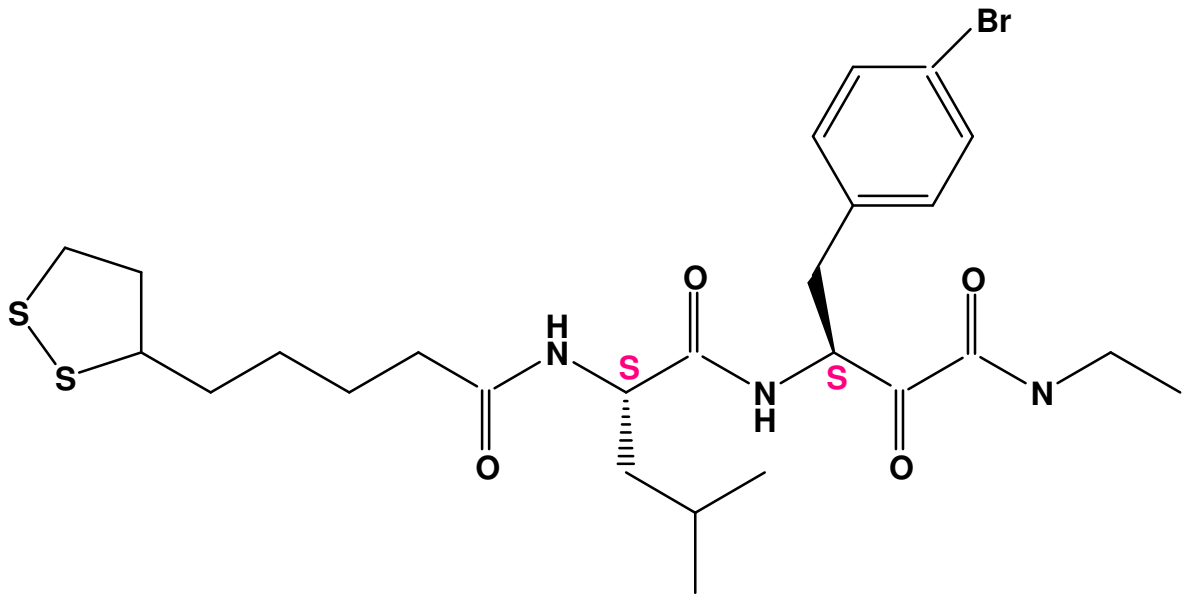
f)



Composés différents

Exercice n°6





Bon courage

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   - Télécharger des cours, TD, TP et examens résolus (PDF Gratuit)

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   - Trouver des cadeaux et accessoires pour biologistes et géologues.
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   - Télécharger des exemples des CV, lettres de motivation, demandes de ...
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