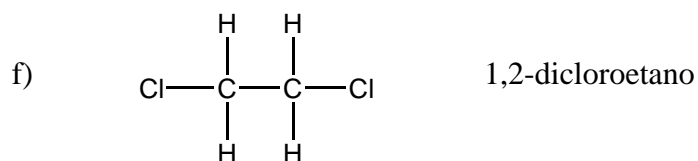
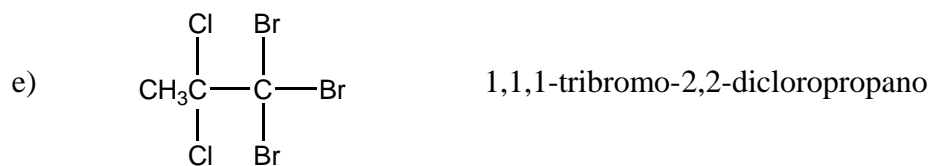
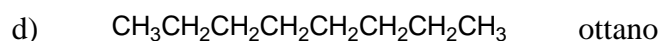
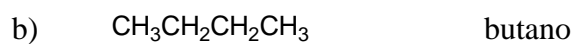
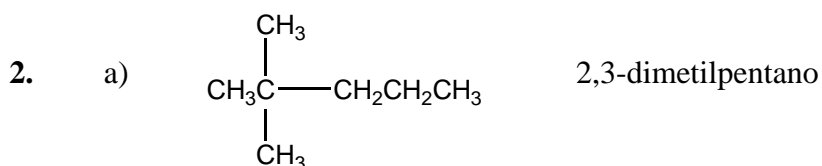
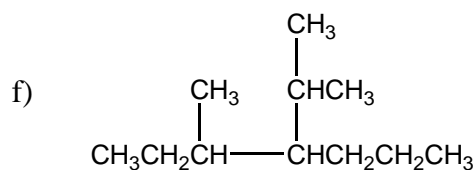
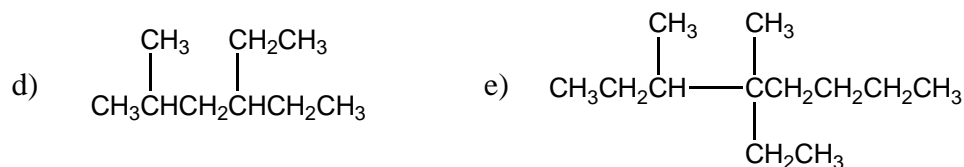
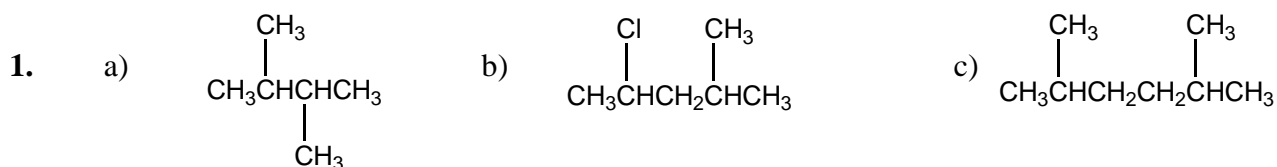


**CAPITOLO 2**



## Percorsi di chimica organica - Soluzioni degli esercizi del testo

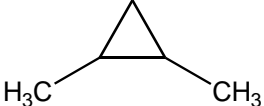
3. a) bromuro di metile; bromo metano  
b) fluoruro di etile; fluoro etano  
c) bromuro di metilene; 1,1-dibromometano  
d) bromuro di isopropile; 1-bromo-1-metiletano  
e) cloroformio; tribromometano  
f) bromuro di *terz*-butile; 2-bromo-2-metilpropano  
g) ioduro di propile; 1-iodopropano  
h) cloruro di isobutile; 2-clorobutano

4. a)  $\begin{array}{c} \text{Cl} \\ | \\ \text{CH}_3-\text{CH}-\text{CH}_2-\text{Cl} \end{array}$  il nome corretto è: 1,2-dicloropropano. La numerazione al punto di ramificazione deve essere la più bassa possibile.

- b)  $\begin{array}{c} \text{CH}_2\text{CH}_3 \\ | \\ \text{CH}_3-\text{CH}-\text{CH}_2-\text{CH}_3 \end{array}$  il nome corretto è: 3-metilpentano. La catena principale è a 5 atomi di carbonio

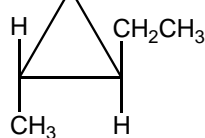
- c)  $\begin{array}{c} \text{CH}_3 \qquad \qquad \text{CH}_3 \\ | \qquad \qquad \qquad | \\ \text{CH}-\text{CH}_2-\text{CH}-\text{CH}_2-\text{CH}_3 \\ | \\ \text{CH}_3 \end{array}$  il nome corretto è: 2,4-dimetilesano. La catena principale è a 6 atomi di carbonio

- d)  $\text{CH}_3-\text{CH}_2-\begin{array}{c} \text{CH}_3 \\ | \end{array}-\text{CH}-\text{CH}_2-\text{Br}$  il nome corretto è: 1-bromo-2-metilbutano. La numerazione al punto di ramificazione deve essere la più bassa possibile.

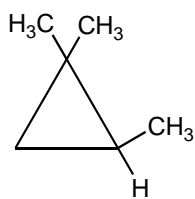
- e)  il nome corretto è: 1,2-dimetilciclopropano. La numerazione al punto di ramificazione deve essere la più bassa possibile.

5.

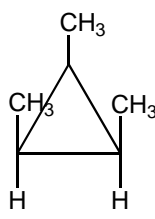
a



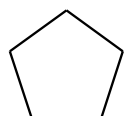
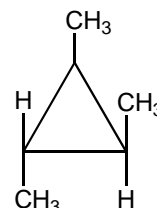
*trans*-1-etil-2-metilciclopropano



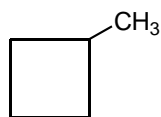
1,1,2-trimetilciclopropano



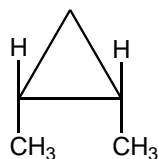
1,2,3-trimetilciclopropano



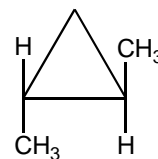
ciclopentano



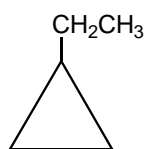
metilciclobutano



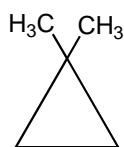
*cis*-1,2-dimetilciclopropano



*trans*-1,2-dimetilciclopropano



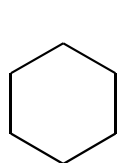
etilciclopropano



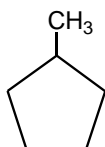
1,1-dimetilciclopropano

Percorsi di chimica organica - Soluzioni degli esercizi del testo

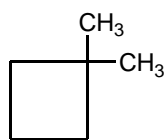
b)



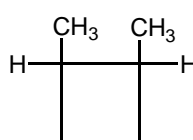
cicloesano



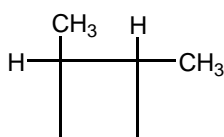
metilciclopentano



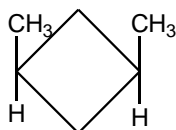
1,1-dimetilciclobutano



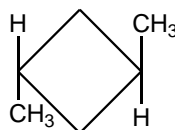
*cis*-1,2-dimetilciclobutano



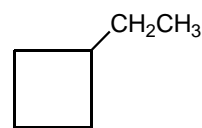
*trans*-1,2-dimetilciclobutano



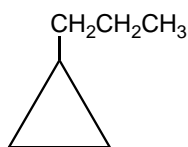
*cis*-1,3-dimetilciclobutano



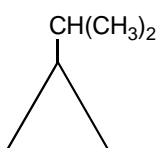
*trans*-1,3-dimetilciclobutano



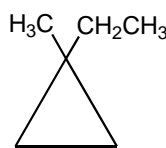
etilciclobutano



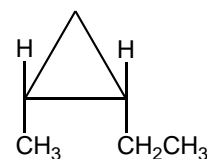
propilciclopropano



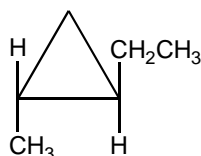
isopropilciclopropano



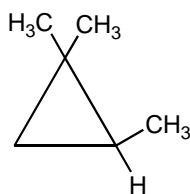
1-etil-1-metilciclopropano



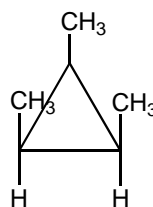
*cis*-1-etil-2-metilciclopropano



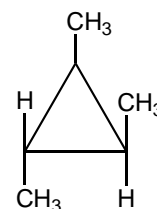
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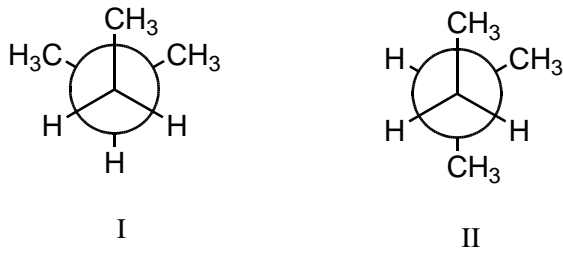
1,1,2-trimetilciclopropano



1,2,3-trimetilciclopropano

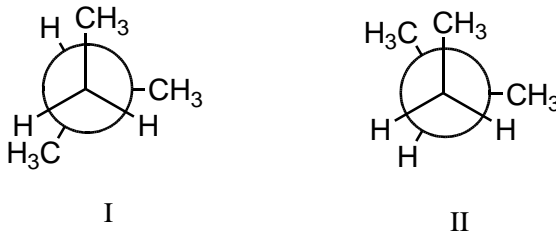


6.



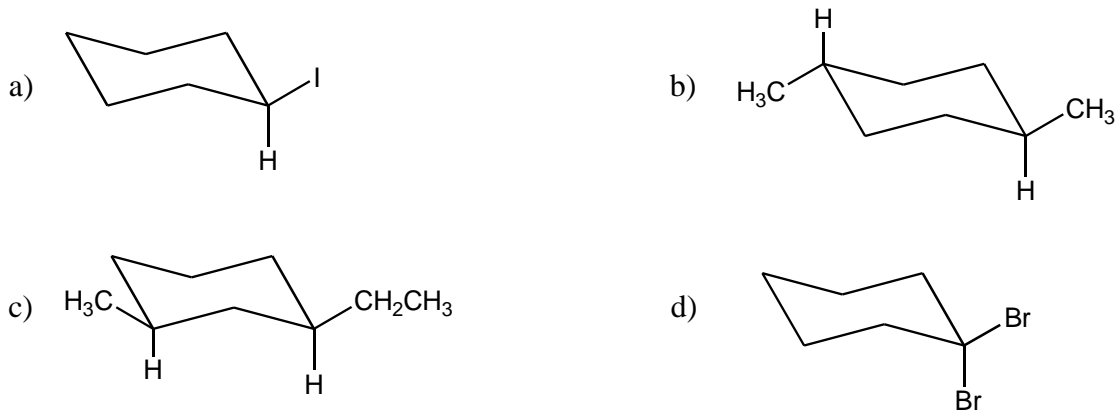
La conformazione sfalsata II è più stabile perché c'è minore ingombro sterico tra i gruppi metilici di cui due sono in anti.

7.

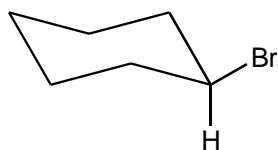


La conformazione I è più stabile perché c'è minore ingombro sterico tra i gruppi metilici di cui due si eclissano nella conformazione II.

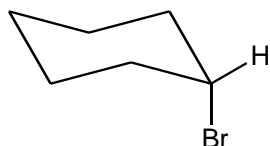
8.



9.



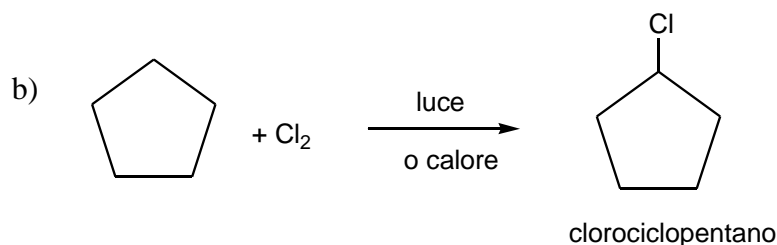
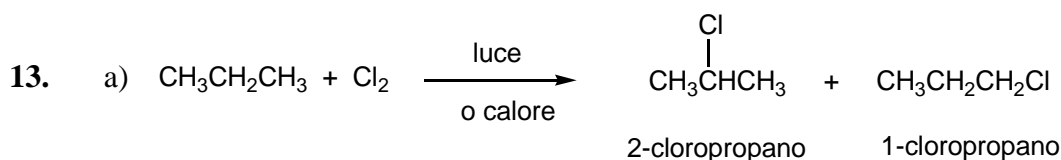
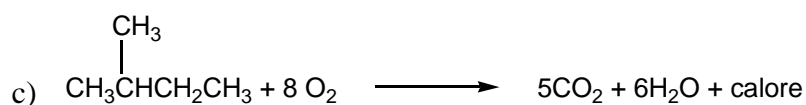
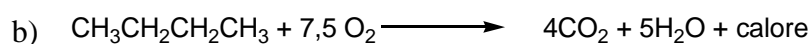
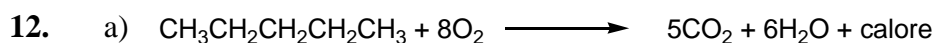
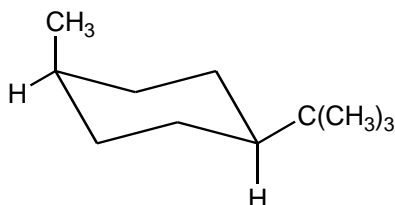
bromo in posizione equatoriale



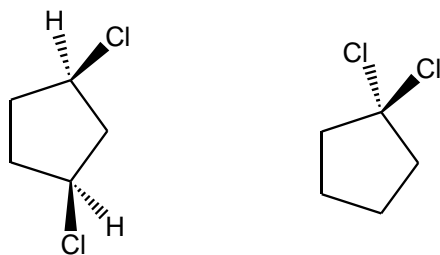
bromo in posizione assiale

10. Il *trans* è il più stabile perché entrambi i sostituenti possono essere in posizione equatoriale.

11.



**14.** Gli isomeri di struttura sono molecole che hanno lo stesso tipo e lo stesso numero di atomi ma differenti connessioni di legami. Due isomeri di struttura del cis 1,2-ciclopentano sono:



**15.**

