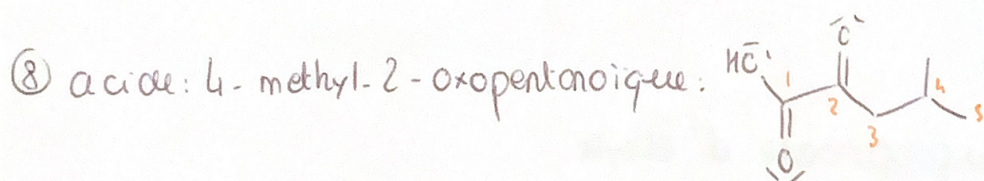
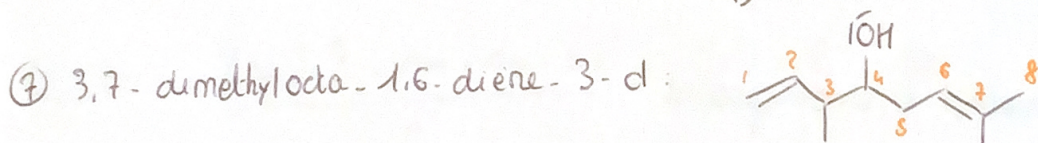
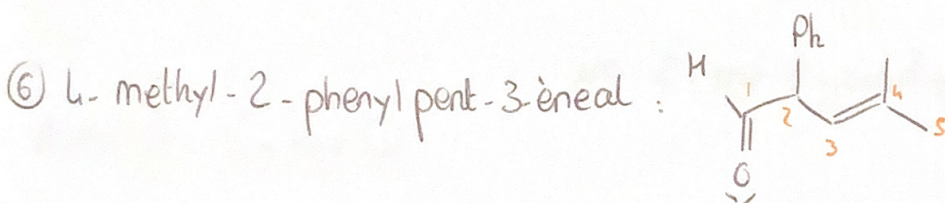
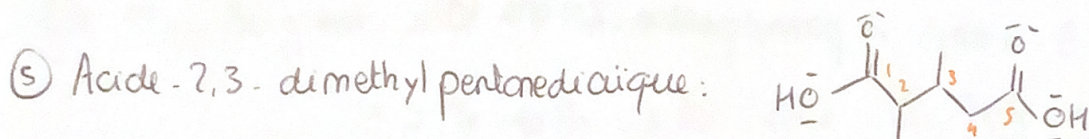
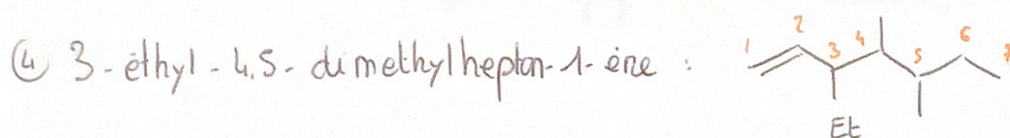
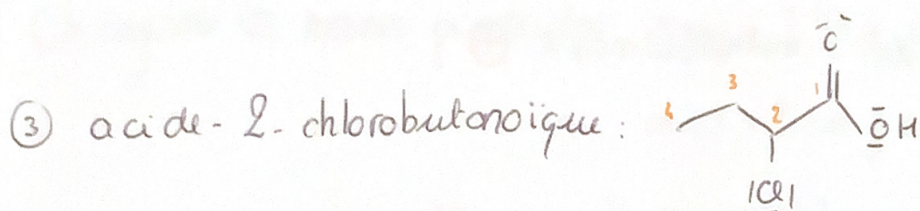
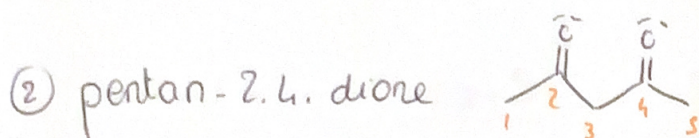
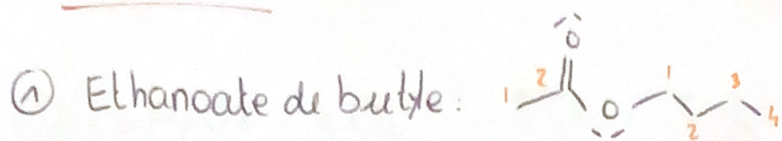


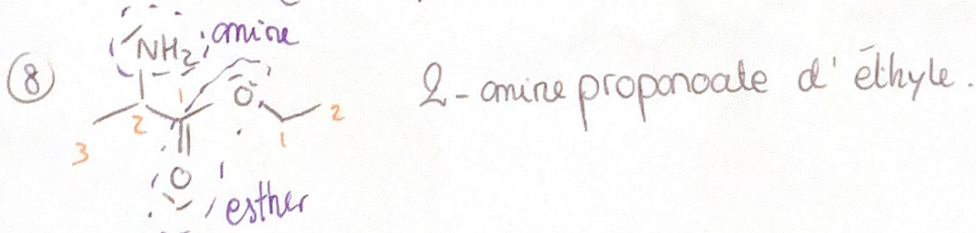
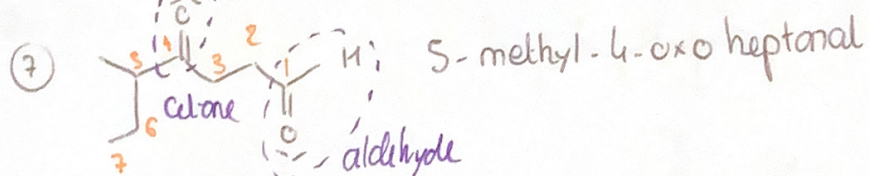
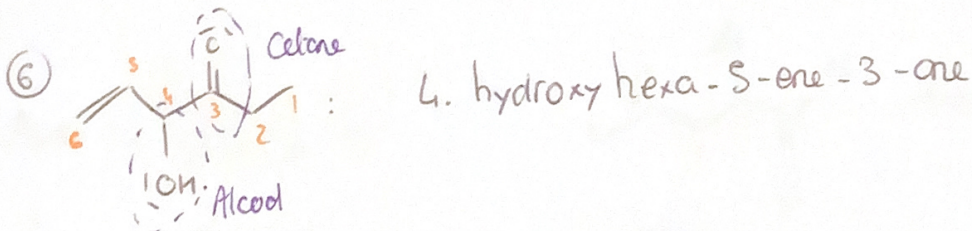
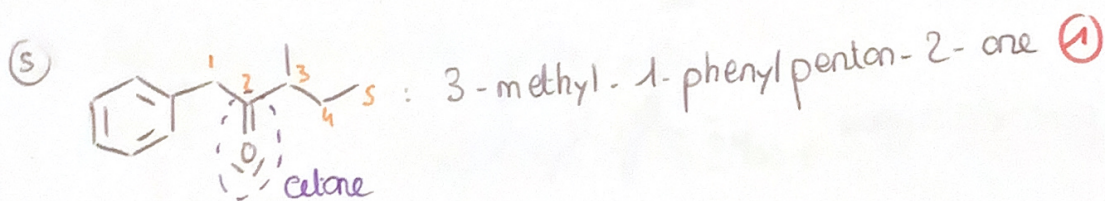
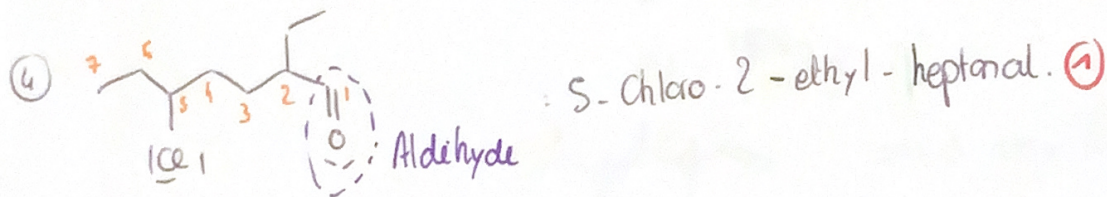
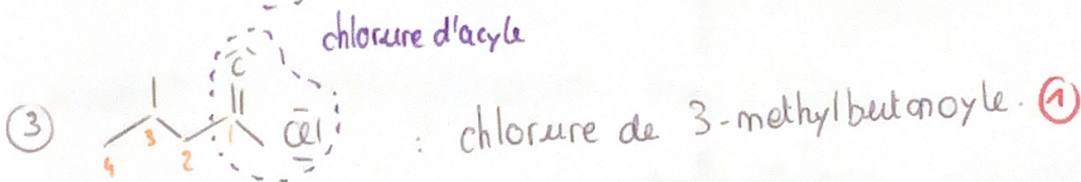
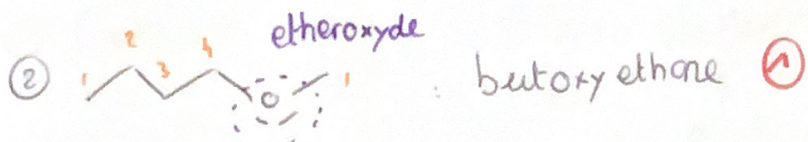
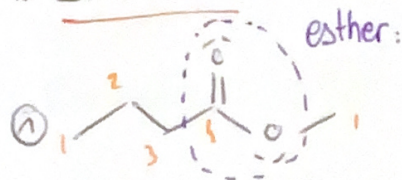
# Correction TD (1.3 - Isomerie.

## \* Exercice 1 :





# \* Exercice 2: (5)

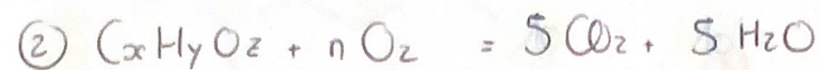




### \* Exercice 3



$$n = \frac{1}{2} (2x + \frac{y}{2} - z)$$



$$\downarrow \quad \downarrow$$

$$\boxed{x=5} \quad \frac{y}{2} = 5 \Leftrightarrow \boxed{y=10}$$

$$\boxed{n = x + \frac{y}{4} - \frac{z}{2}}$$

On regarde les masses produites:  $m_{CO_2} = 7.33 \text{ g} \Leftrightarrow n_{CO_2} = 0.17 \text{ mol}$

$$m_{H_2O} = 3.00 \text{ g} \Leftrightarrow n_{H_2O} = 0.17 \text{ mol}$$

$$m_A = 2.87 \text{ g} \Leftrightarrow n_A = \frac{m_A}{86} = 0.033 \text{ mol}$$

$$\text{Or } n_A = 86 \text{ g} \cdot \text{mol}^{-1} = x n_C + y n_H + z n_O$$

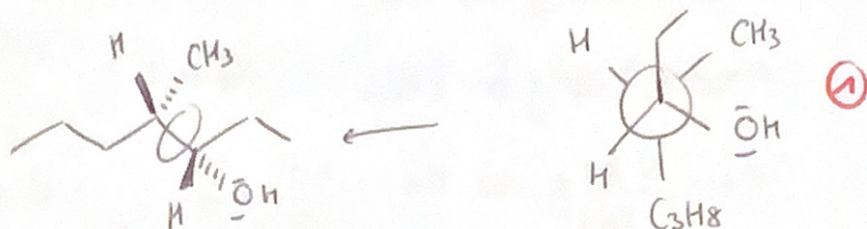
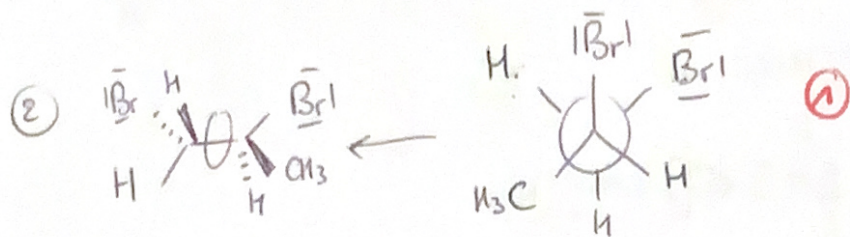
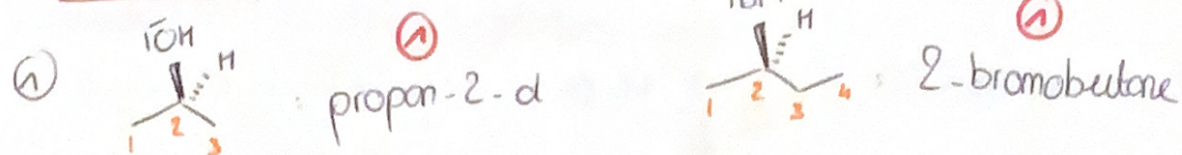
$$= 5 n_C + 10 n_H + z n_O \Leftrightarrow z = \frac{86 - 5 n_C - 10 n_H}{n_O} = 1$$

Ainsi  $\boxed{A = C_5 H_{10} O}$

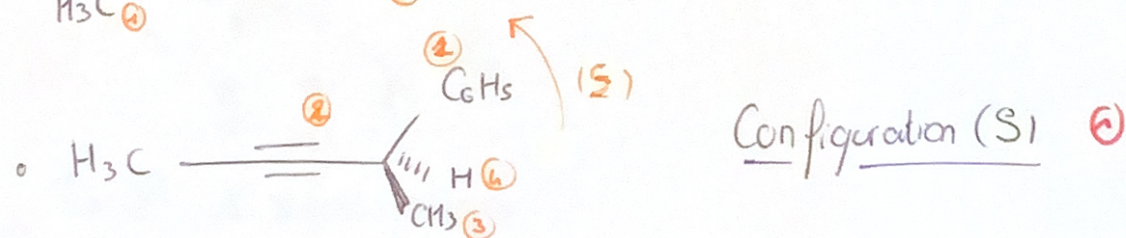
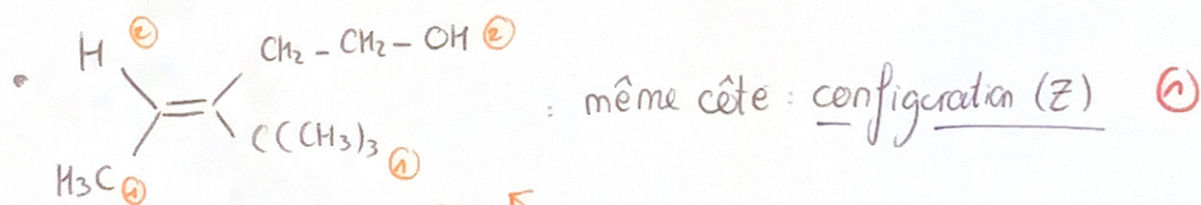
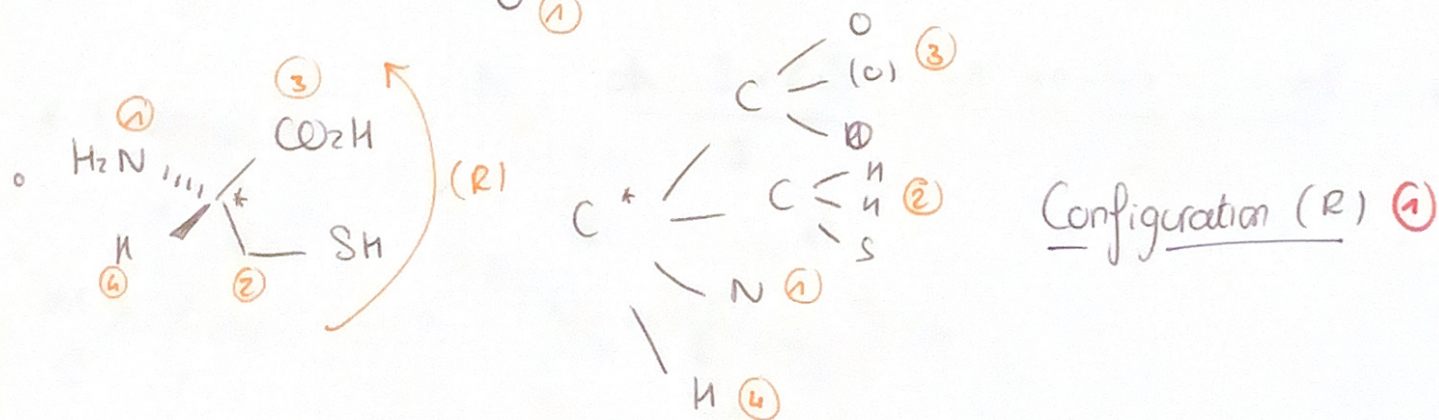
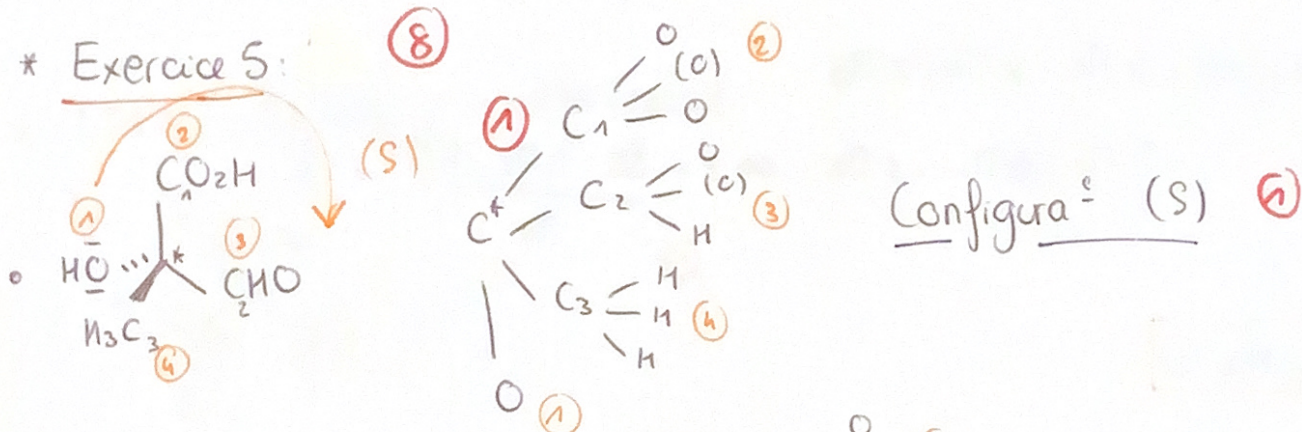
$$③ N_i = \frac{2n_C + 2 - n_H + n_N - n_X}{2} = \frac{2 \times 5 + 2 - 10}{2} = 1$$



\* Exercice 4: (4)

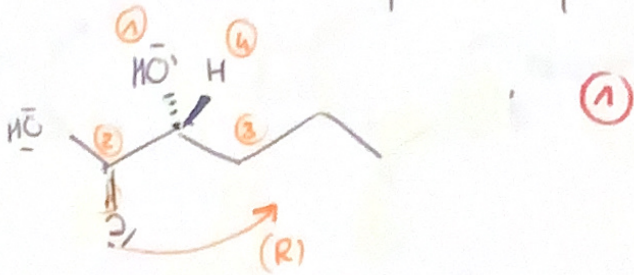


\* Exercice 5: (8)

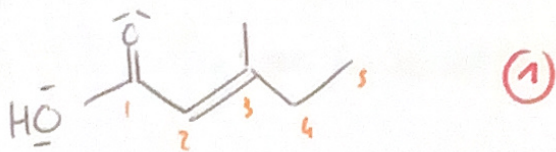




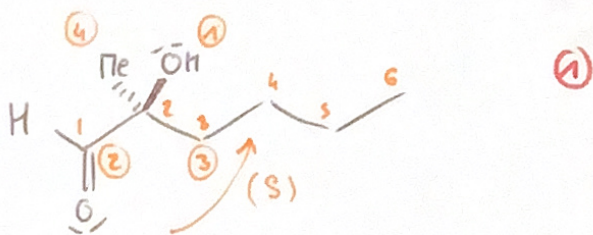
②  
- acide (R) 2-hydroxypentanoïque



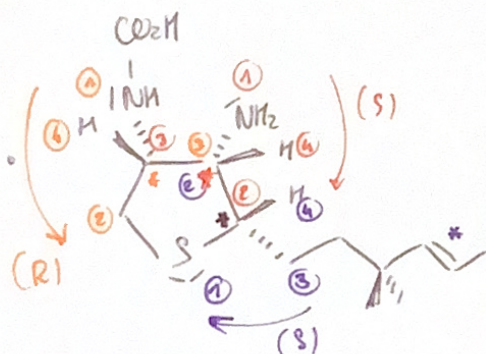
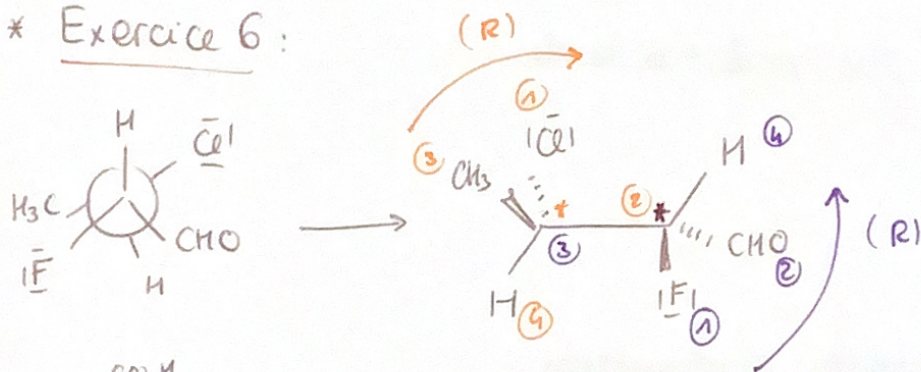
- acide (E) 3-méthylpent-2-énoïque



- (S)-2-hydroxy-2-méthylhexanal



\* Exercice 6 :



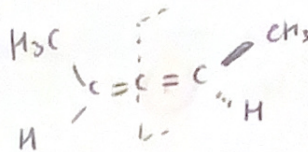
↳  $2^n = 16$  stéréoisomères



# \* Exercice 7:

①: 1 C\*: chirale

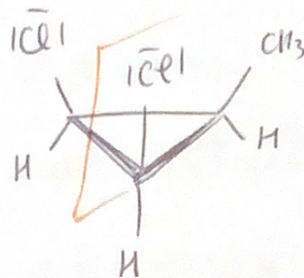
②: plan de symetrie: achirale:



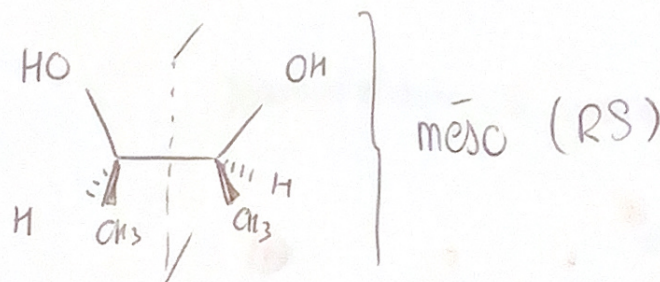
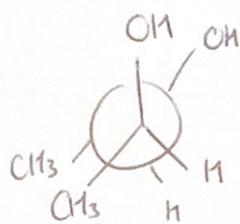
③ pas C\*, achirale

④ chirale: aucune symetrie

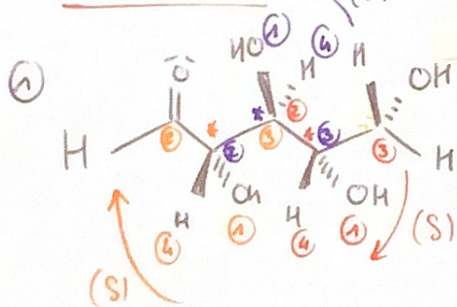
⑤ Achirale: plan symetrie



⑥ achirale: plan de symetrie:



# \* Exercice 8:



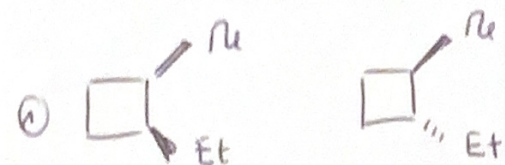
pas symetrie ⇒ chirale

② 3 C\* ⇒ 2<sup>3</sup> = 8 stéréoisomères configurations

③ une infinité conformations



\* Exercice 9 :



: changement ~~une~~ seul configuration: diastéréoisomères

② Changement des deux configurations: énantiomères

③ Change<sup>±</sup> toutes config: énantiomères

④ change<sup>±</sup> 1 seul config: diastéréoisomère

⑤ change<sup>±</sup> 2 config sur 4: diastéréoisomères