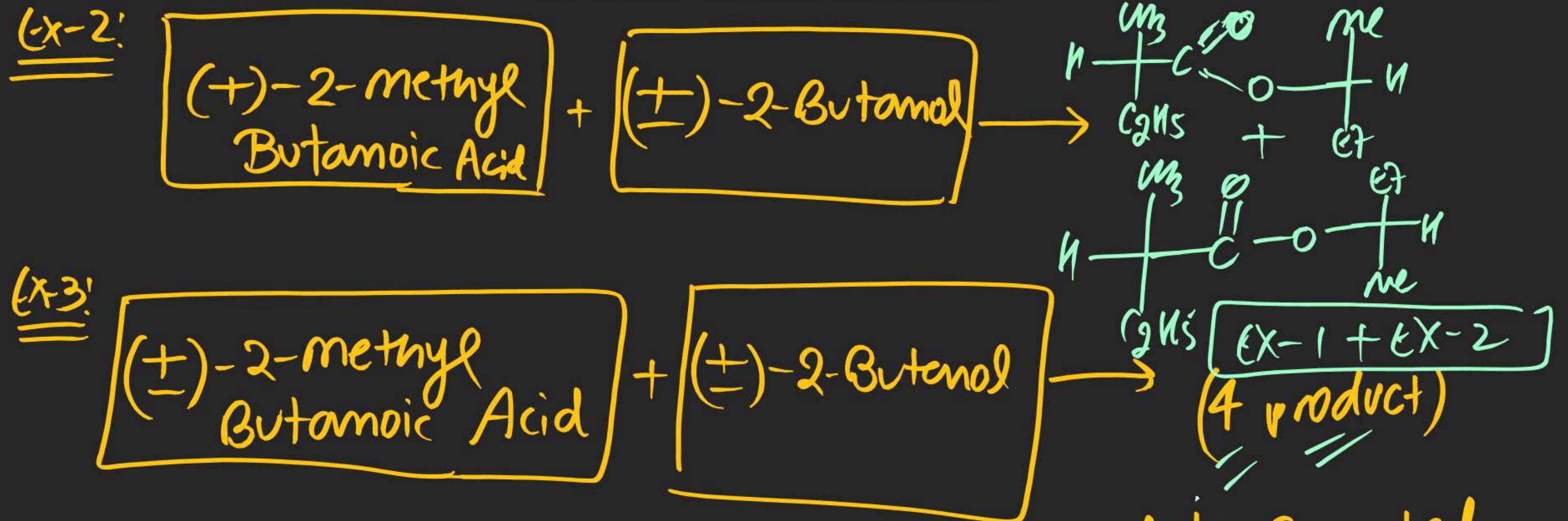
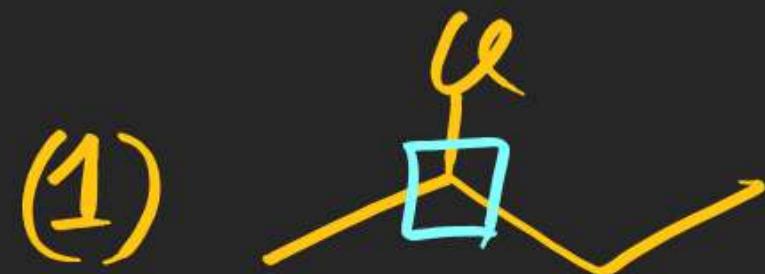


## STEREOISOMERISM

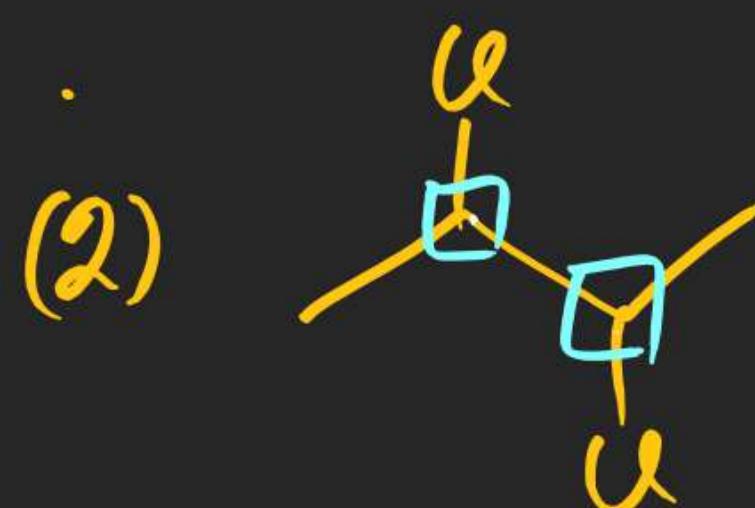


Q4: Find Total no. of Compounds which can be used to convert  
Enantiomeric mixture of Carboxylic Acid into Diastereomer  
mixture.

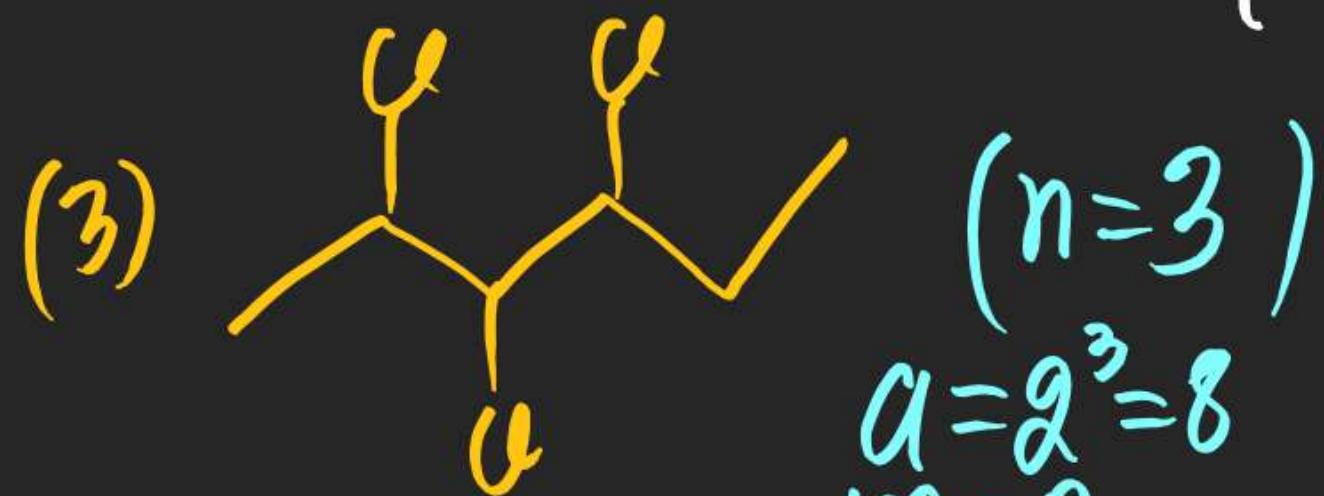
## STEREOISOMERISM



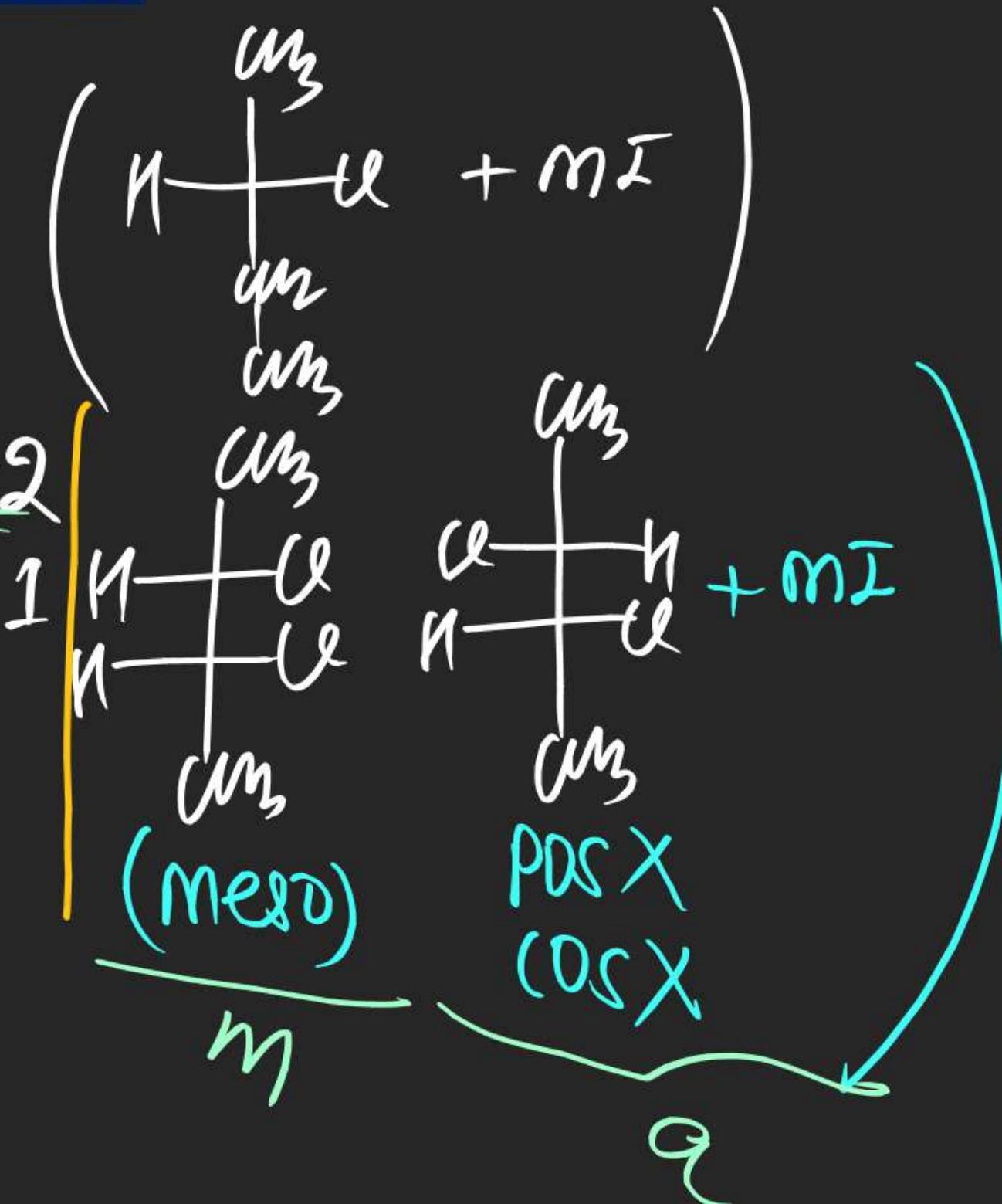
$$(n=1) \left\{ \begin{array}{l} a = 2^1 = 2 \\ m = 0 \\ EP = 1 \\ T = 2 \end{array} \right.$$

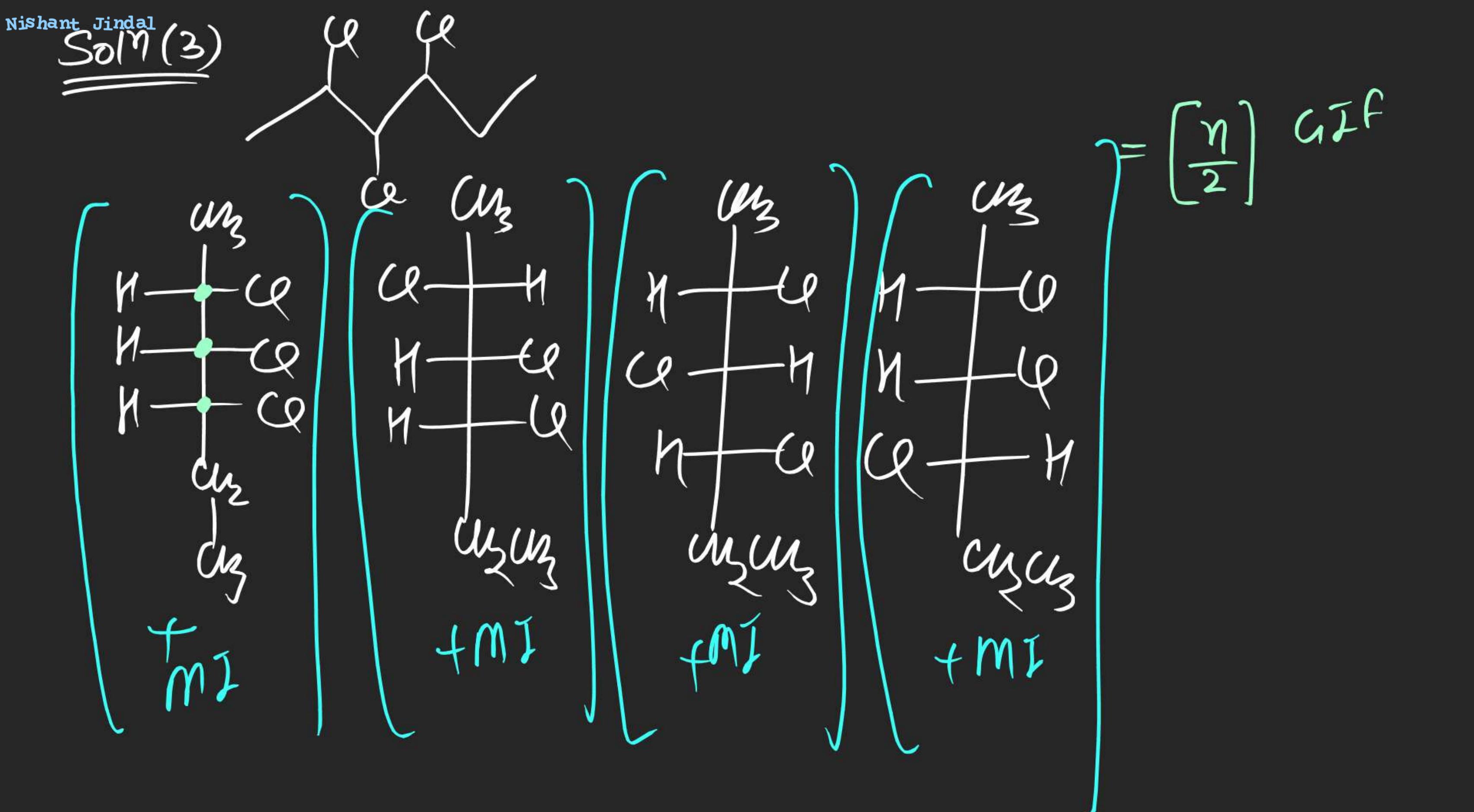


$$(n=2) \left\{ \begin{array}{l} a = 2^{2-1} = 2 \\ \underline{m} = 2^{1-1} = 1 \\ EP = 1 \\ T = 3 \end{array} \right.$$



$$\begin{array}{l} a = 2^3 = 8 \\ m = 0 \\ EP = 4 \\ T = 8 \end{array}$$





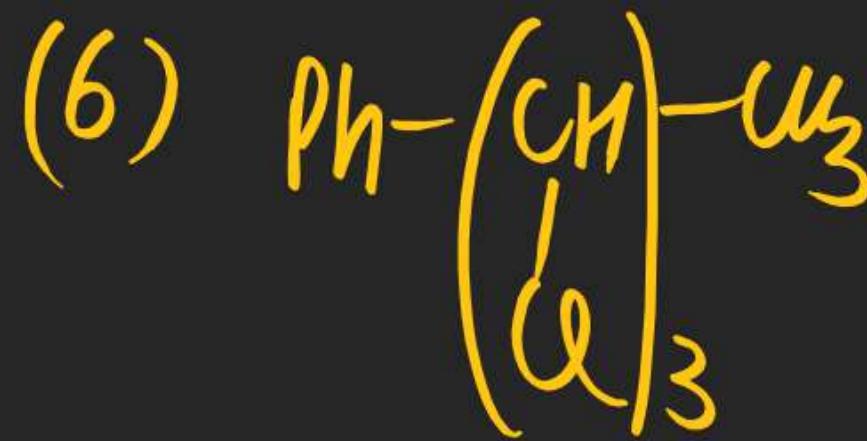
# STEREOISOMERISM



$$\left. \begin{array}{l} (\eta=5) \\ \text{Symmetrical} \\ (\eta=4) \end{array} \right\} \quad \begin{array}{l} a = 2^{\eta-1} - 2^{\frac{\eta-1}{2}} = 2^{5-1} - 2^{\frac{5-1}{2}} = 2^4 - 2^2 = 12 \\ m = 4 \\ EP = 6 \\ T = 16 \end{array}$$

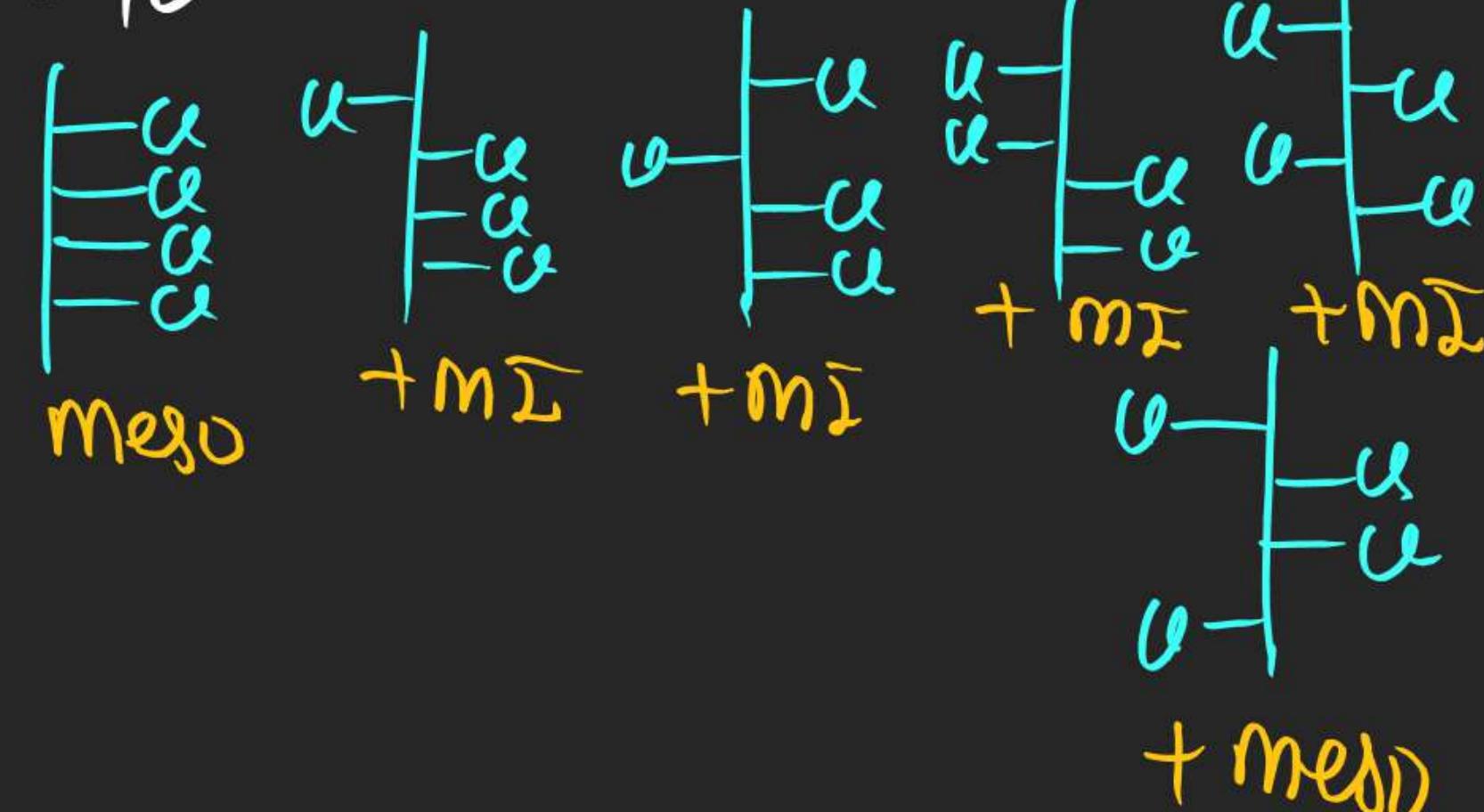


$$\boxed{a = 8, m = 2 \\ EP = 4, T = 10}$$



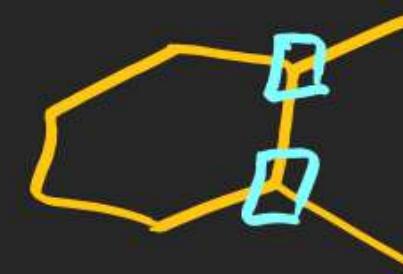
$$(\eta=3)$$

$$\begin{array}{l} a = 2^3 = 8 \\ m = 0 \\ EP = 4 \\ T = 8 \end{array}$$

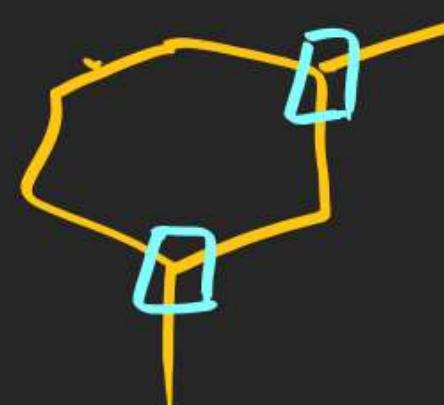
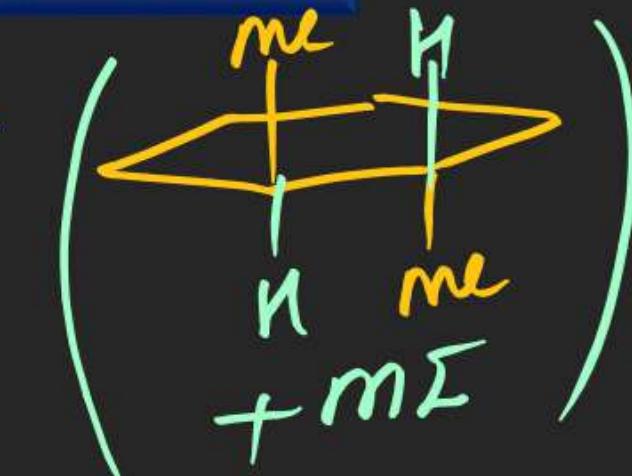


# STEREOISOMERISM

(7)

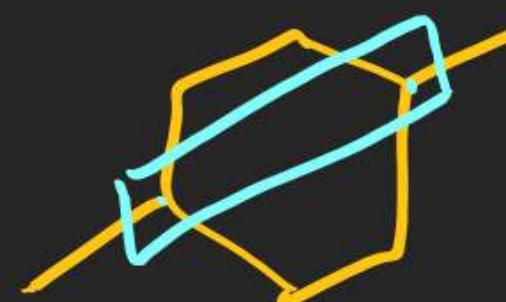
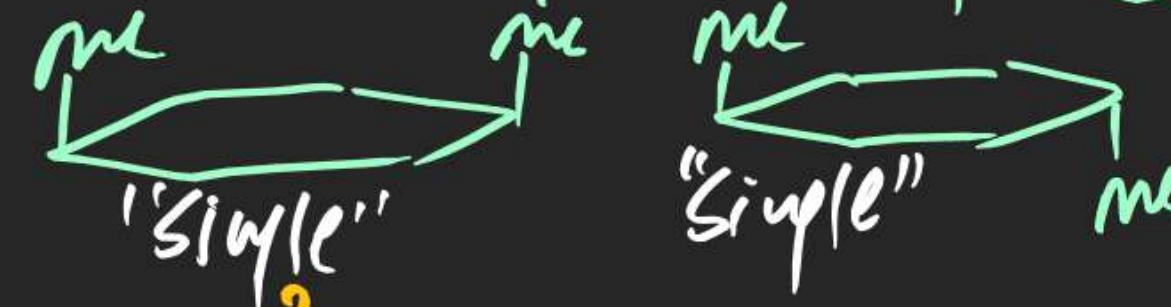
 $(n=2)$ 

(8)

 $(n=2)$ 

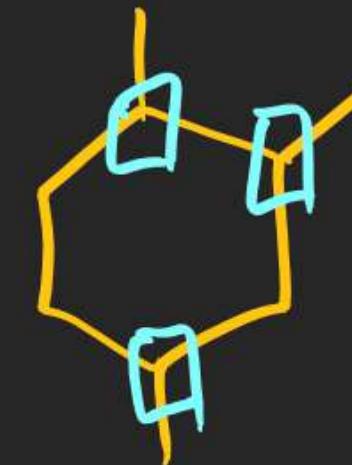
$$\begin{aligned} a &= 2 \\ m &= 1 \\ EP &= 1 \\ T &= 3 \end{aligned}$$

(9)

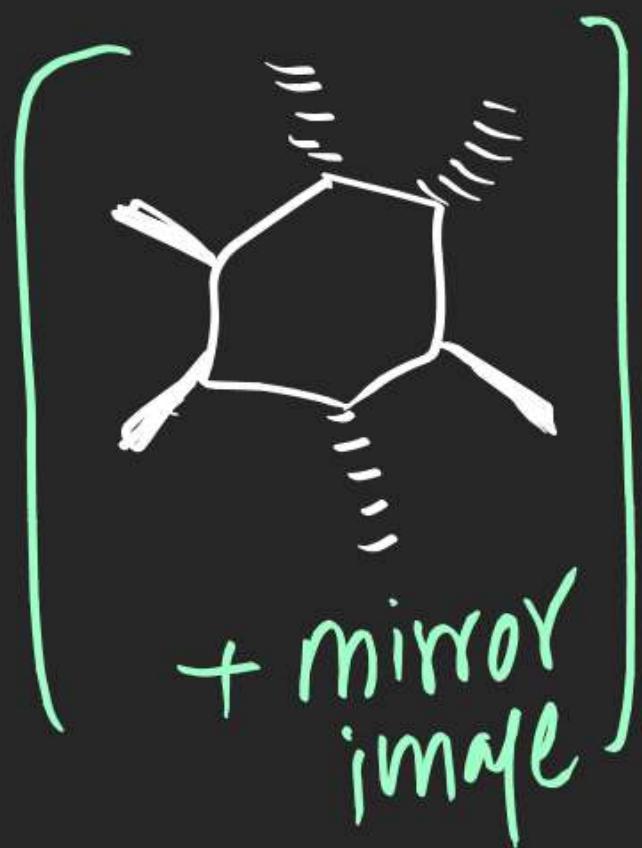
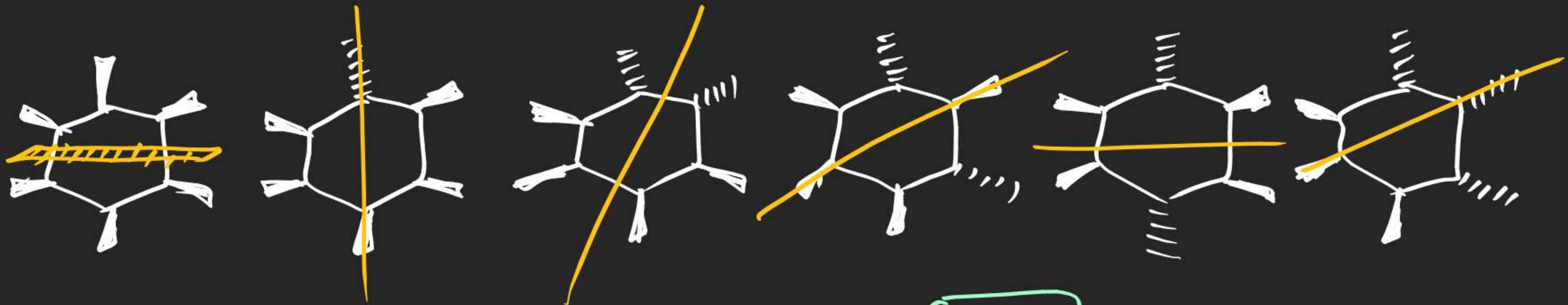
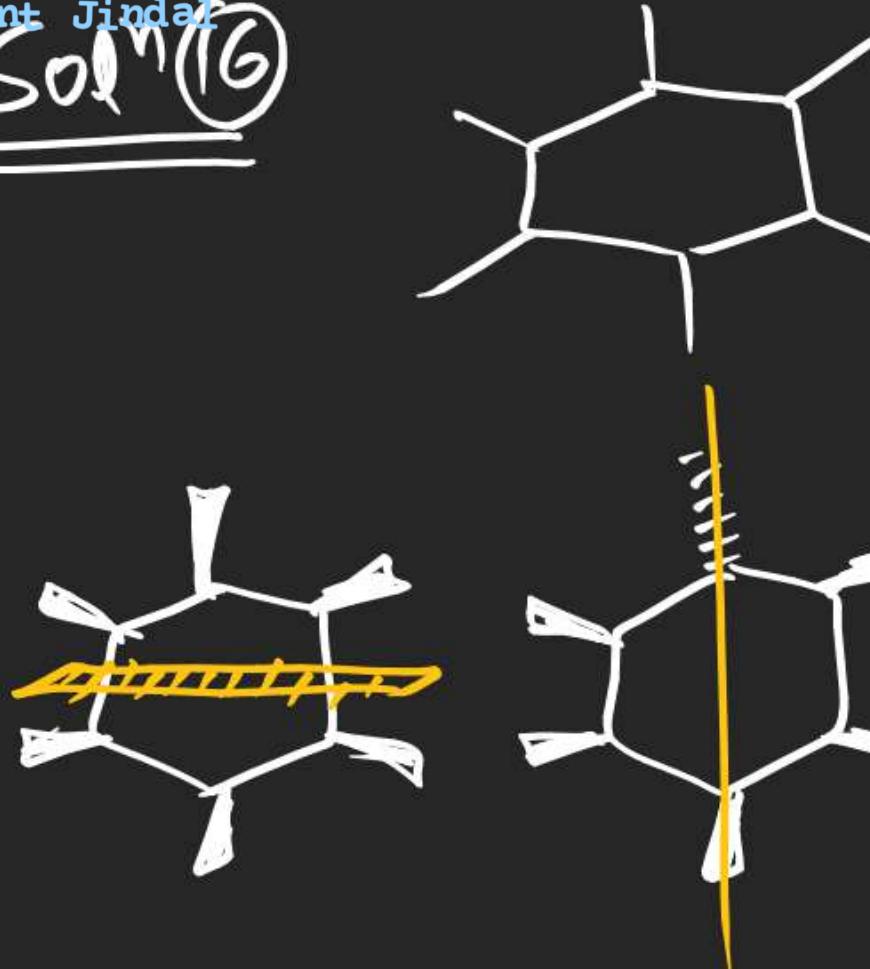
 $(n=1)$ 

$$TSI = 2$$

(10)

 $(n=3)$ 

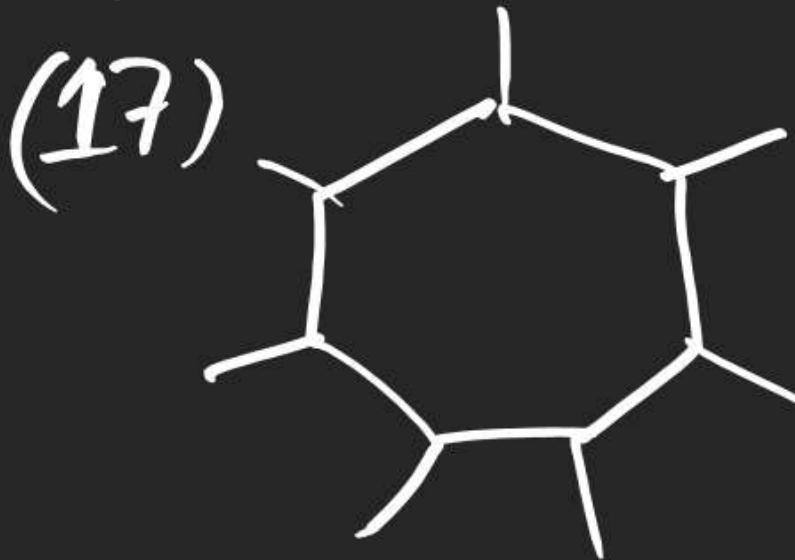
$$\begin{cases} a = 2^3 = 8 \\ m = 0 \\ EP = 4 \\ T = 8 \end{cases}$$

Sol<sup>n</sup>(G)

$$\begin{aligned} a &= 2 \\ m &= 7 \\ \epsilon p &= 1 \\ T &= 9 \end{aligned}$$

$\frac{a}{2}$  = atm

# STEREOISOMERISM



$\Rightarrow$

All wedge

1 Dash

2 Dash

3 Dash

1 Case

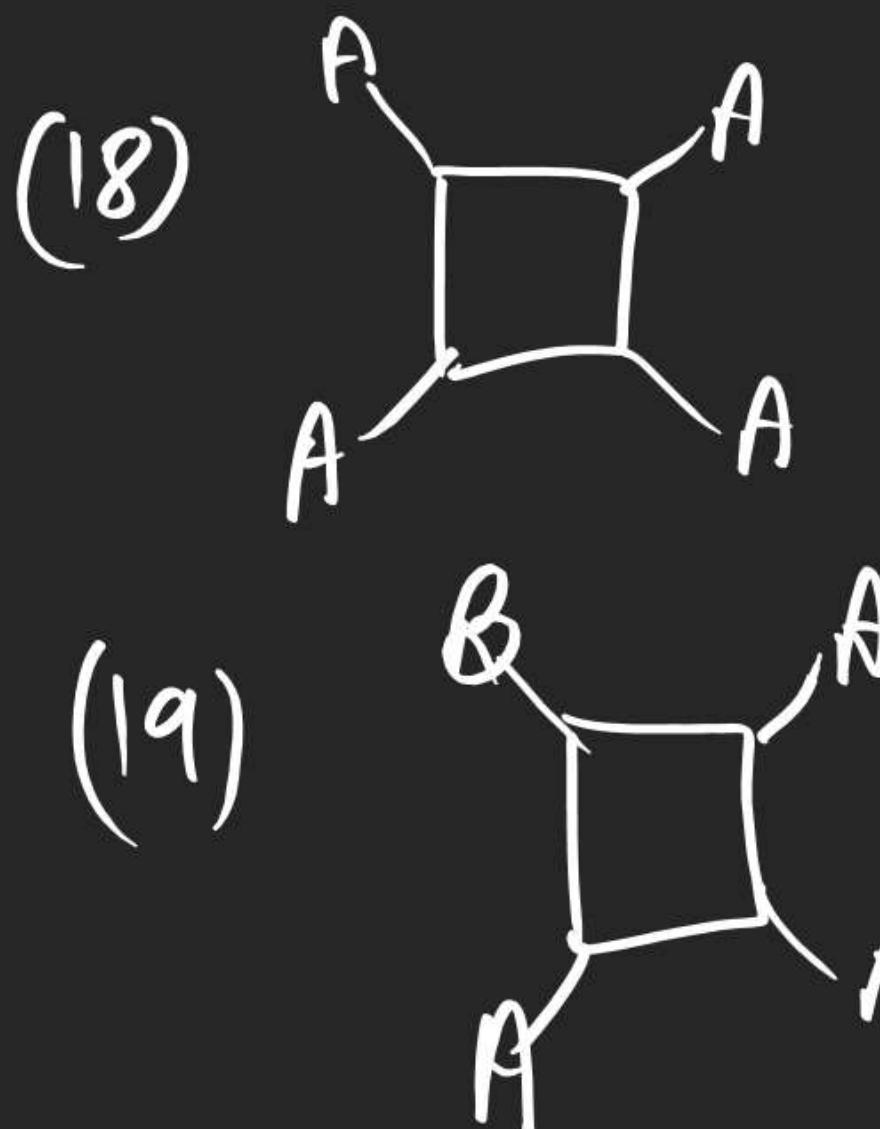
1 Case

3 Case  $(1,2/1,3/1,4) T=10$

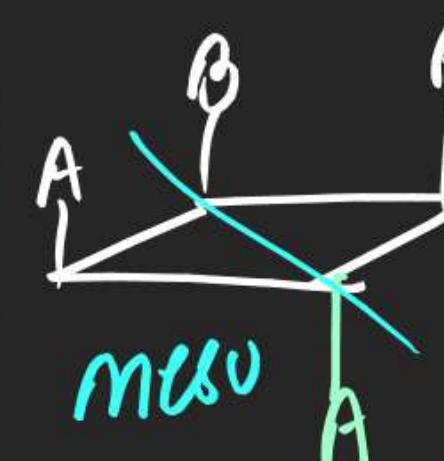
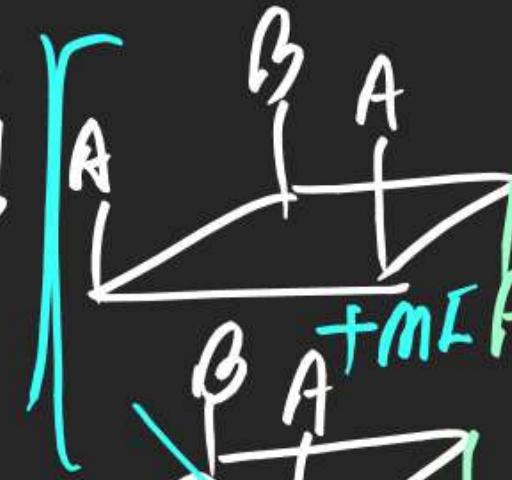
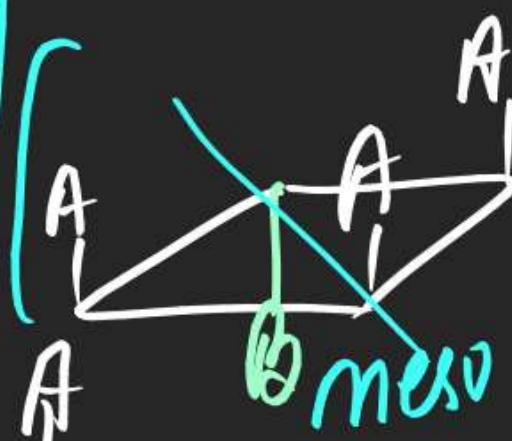
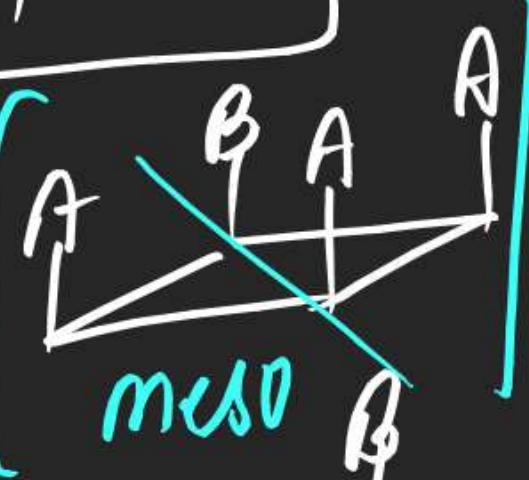
4 Case  $(1,2,3/1,2,4/1,2,5/1,3,5/$

$$\begin{aligned} a &= 2 \\ m &= 8 \\ CP &= 1 \end{aligned}$$

+MF

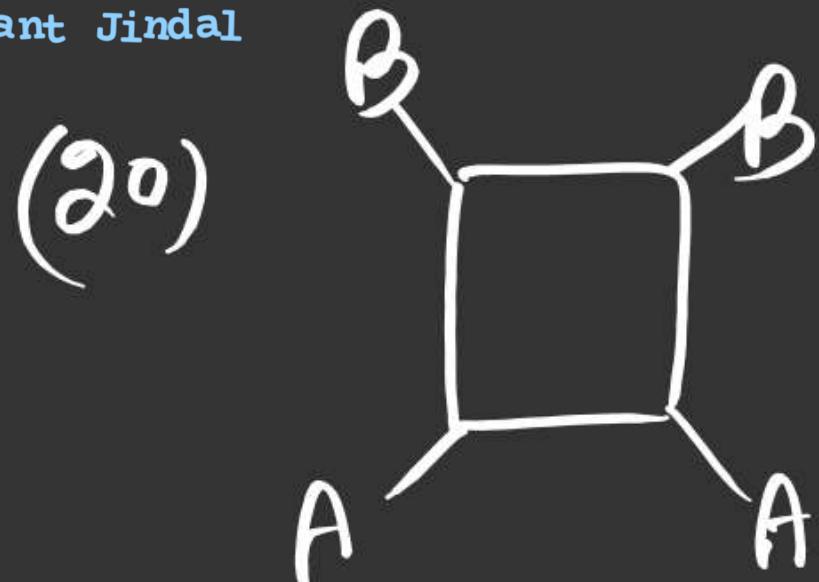


$T=4$



$$\begin{aligned} a &= 4 \\ m &= 4 \\ CP &= 2 \\ T &= 8 \end{aligned}$$

$a=8$ ,  $m=2$ ,  $\epsilon\rho=4$ ,  $T=10$

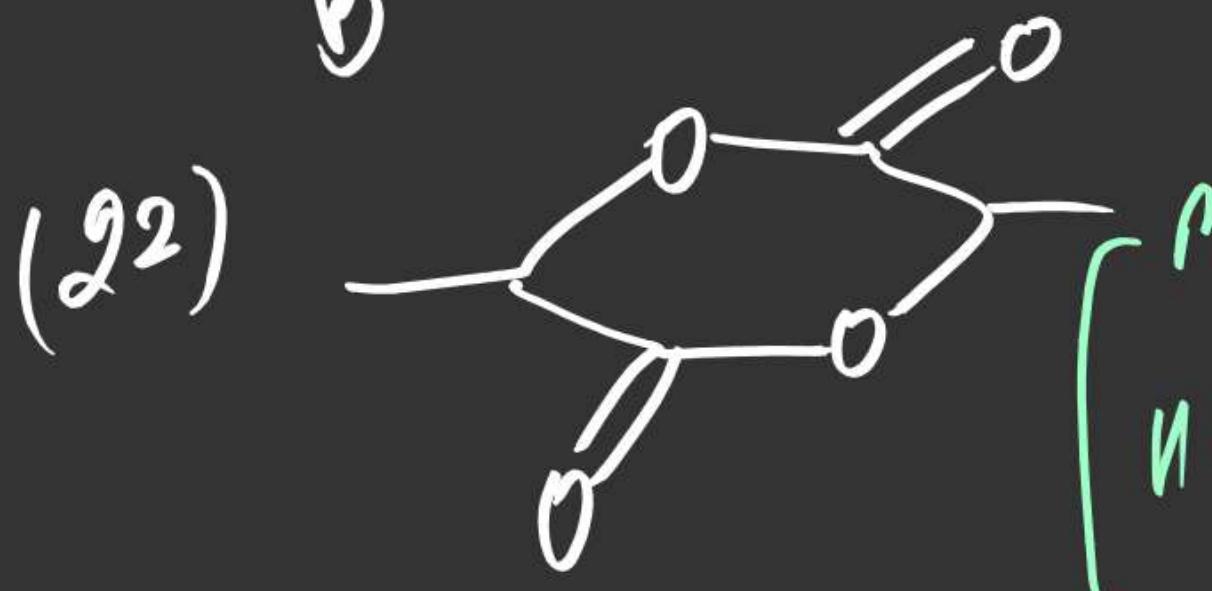


The diagram illustrates the relationship between the number of down layers and the number of cases, taking into account the presence of meso.

- 1 down "2" cases:** Shows two cases where the bottom layer is A and the top layer is B. The first case is labeled "+MI" and the second is labeled "+MII".
- 2 down 3 cases:** Shows three cases where the bottom layer is A and the middle layer is B. The first case is labeled "+MI" and the second is labeled "+MII".
- All up "1"**: Shows one case where all layers are A. It is labeled "meso" and has a bracket below it labeled "All up '1'".



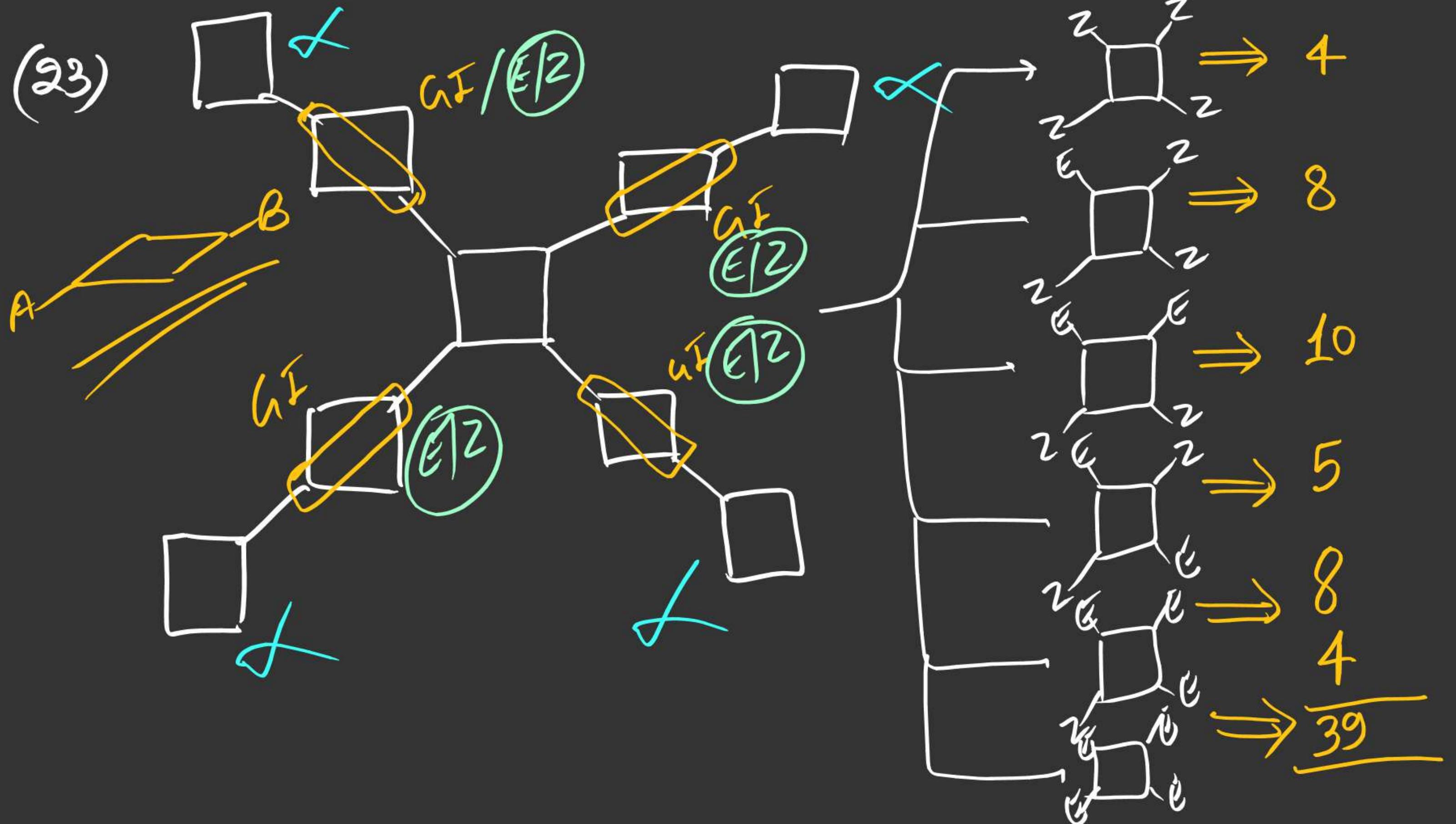
The diagram illustrates a surface with two rows of atoms. The left row, labeled  $T=5$ , has five atoms of type A and one atom of type B. The right row, labeled  $(\cos)$ , has four atoms of type A and one atom of type B. A green bracket at the bottom indicates a periodic boundary condition between the two rows.



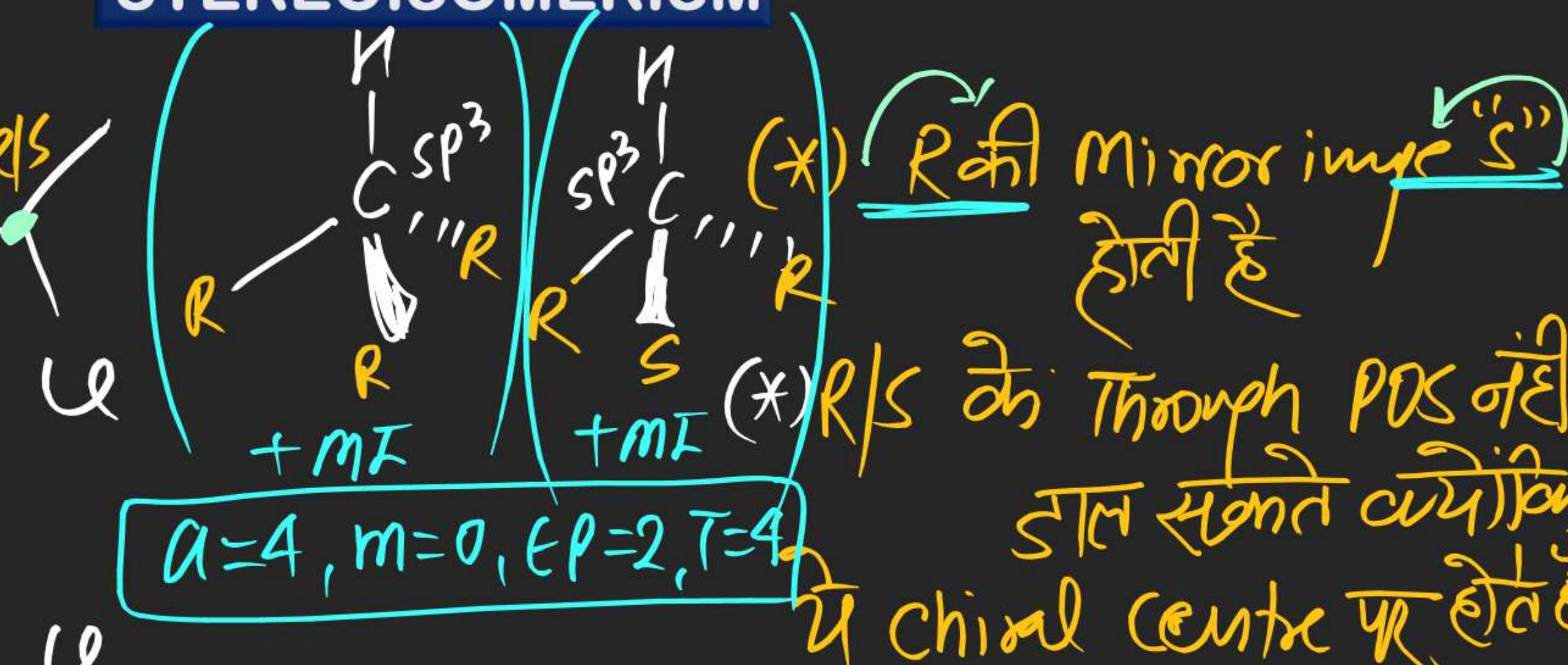
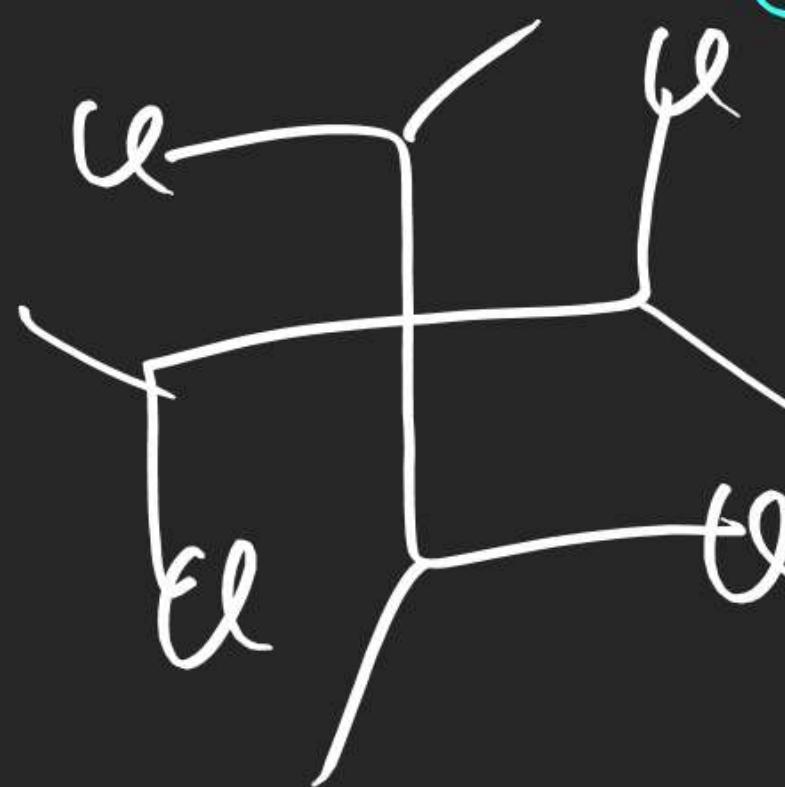
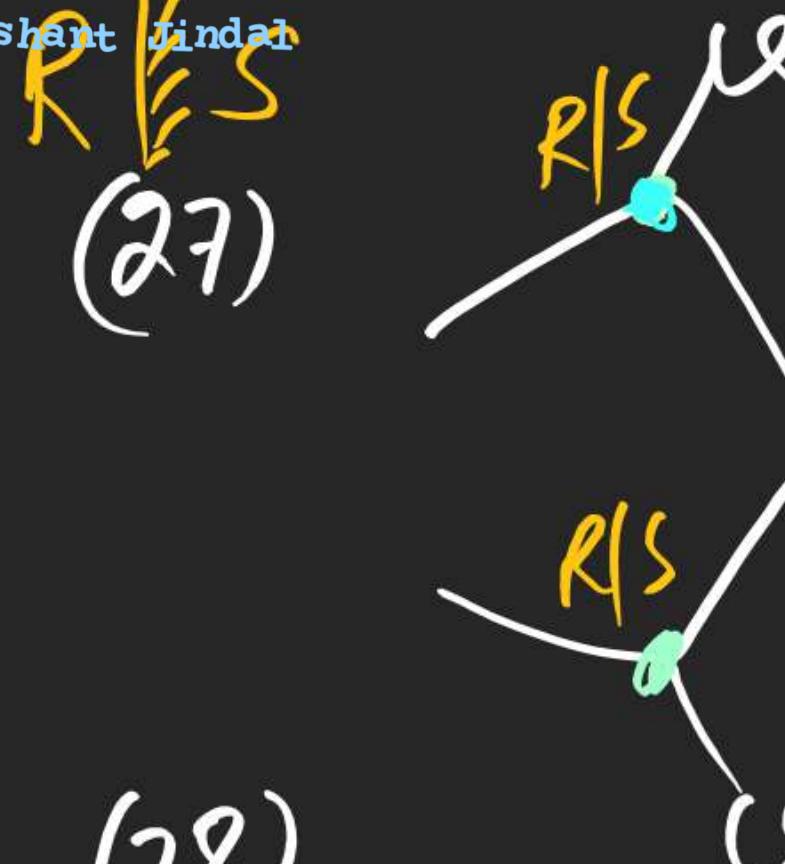
+ Me

methyl ester (cos)

$$\begin{cases} a=2 \\ m=1 \\ ep=1 \\ \overline{r}=3 \end{cases}$$

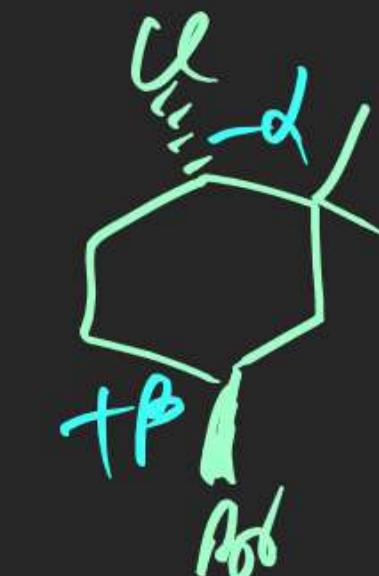
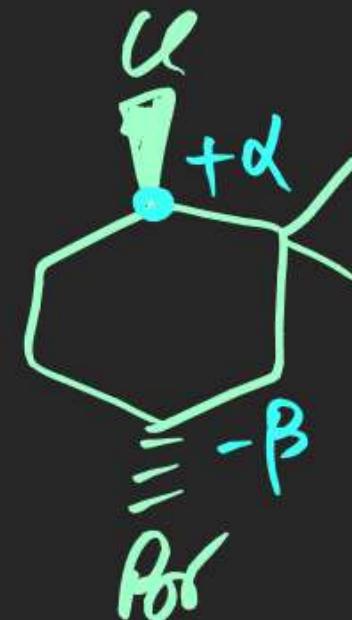
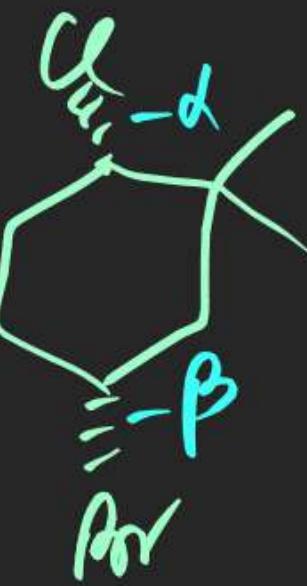
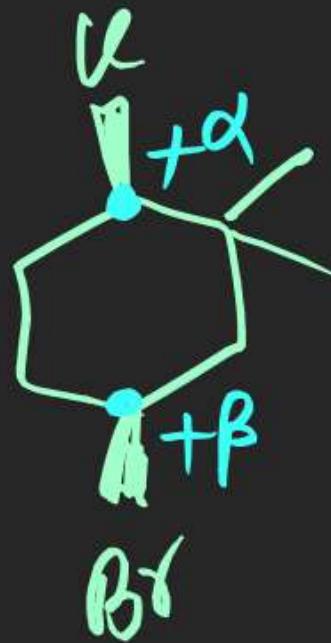
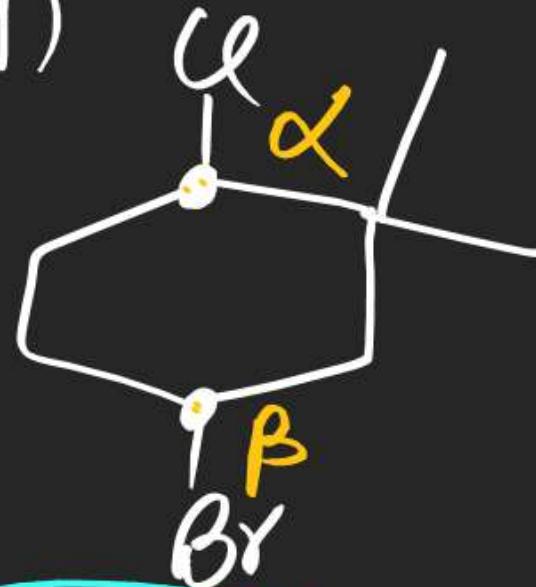


## STEREOISOMERISM

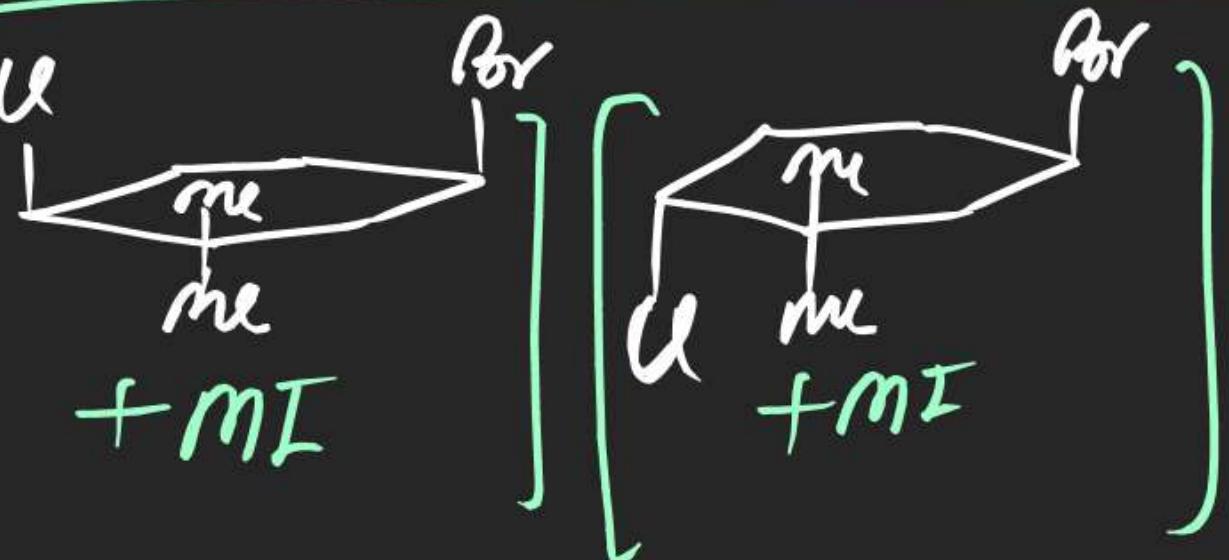


(29)

$$CC=2$$



$$\begin{aligned} a &= 4 \\ m &= 0 \\ EP &= 2 \\ T &= 4 \end{aligned}$$

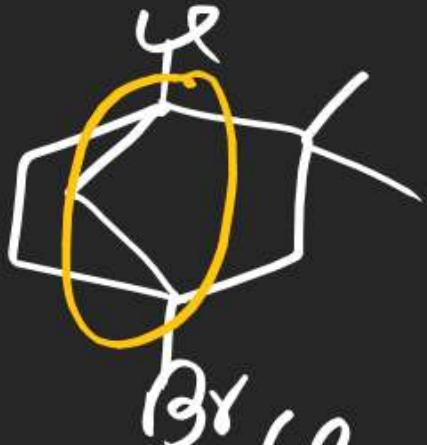


$$\begin{aligned} a &= 4 \\ m &= 0 \\ EP &= 2 \\ T &= 4 \end{aligned}$$

$$\begin{aligned} T &= 4 \\ a &= 2 \\ m &= 0 \\ EP &= 2 \end{aligned}$$

$$a = 2^2 = 4, m = 0, EP = 2, T = 4$$

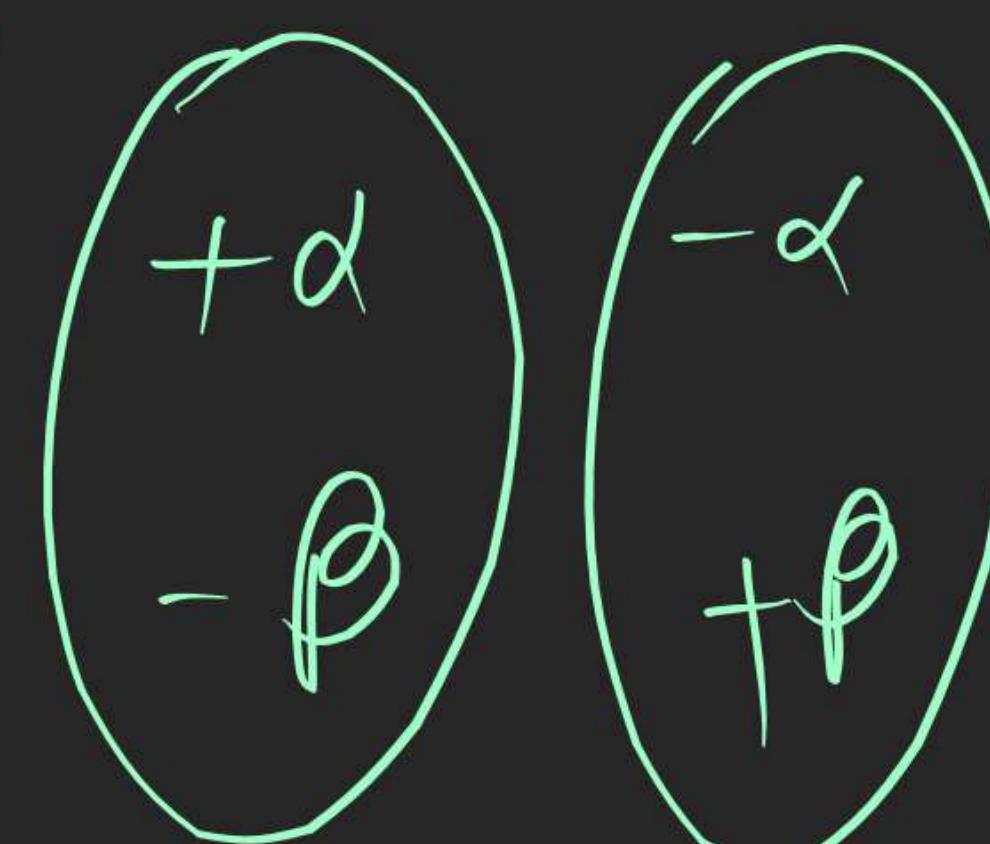
(30)


 $+ \alpha$   
 $+ \beta$   
 $\beta\alpha$ 

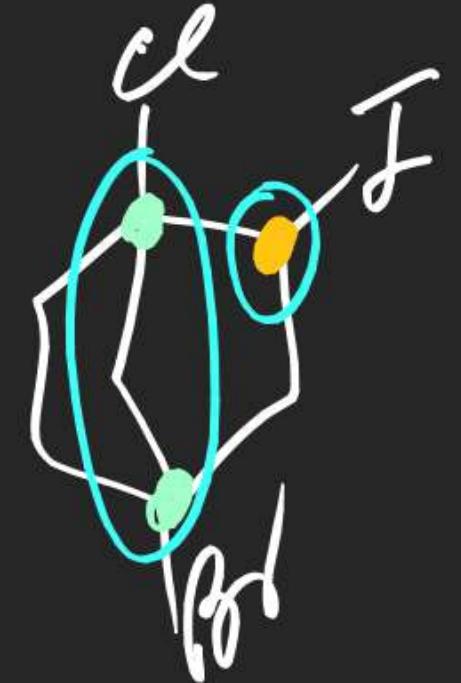
$CC = 2$

$a = 2$   
 $m = 0$   
 $EP = 1$

$T = 2$


 $- \alpha$   
 $- \beta$   
 $\beta\alpha$ 


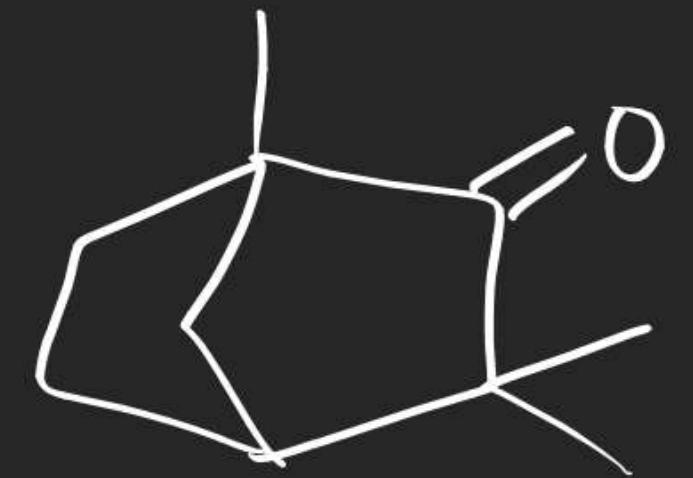
(31)



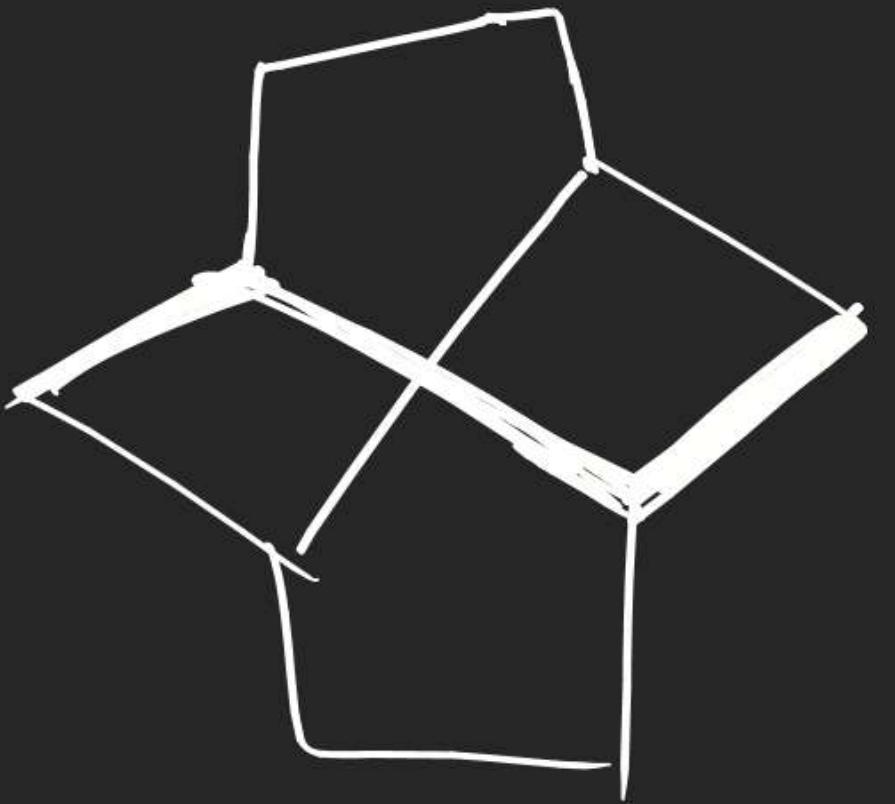
$CC = 3$   
 $TSI = 2^2$   
 $= 4$



(32)



(33)



(34)

