

Basic Organic Chemistry

$$\begin{array}{l|l} x=1 & -3 \\ y=3 & -5 \\ z=0 & -2 \end{array}$$

$$(1+x)(1+y) = 1+x+y+xy = 7+1 = 8$$

$$(1+y)(1+z) = 1+y+z+yz = 3+1 = 4$$

$$(1+x)(1+z) = 1+z+x+xz = 1+1 = 2$$

$$(1+x)^2(1+y)^2(1+z)^2 = 64$$

$$(1+x) \times 4 = \pm 8$$

$$1+x = \pm 2$$

$$x = 1, -3$$

$$(1+x)(1+y)(1+z) = \pm 8 \Rightarrow 8(1+z) = \pm 8$$

$$1+z = \pm 1$$

$$z = 0, -2$$

$$\begin{array}{l} \downarrow \\ 2(1+y) = \pm 8 \\ 1+y = \pm 4 \Rightarrow y = 3, -5 \end{array}$$

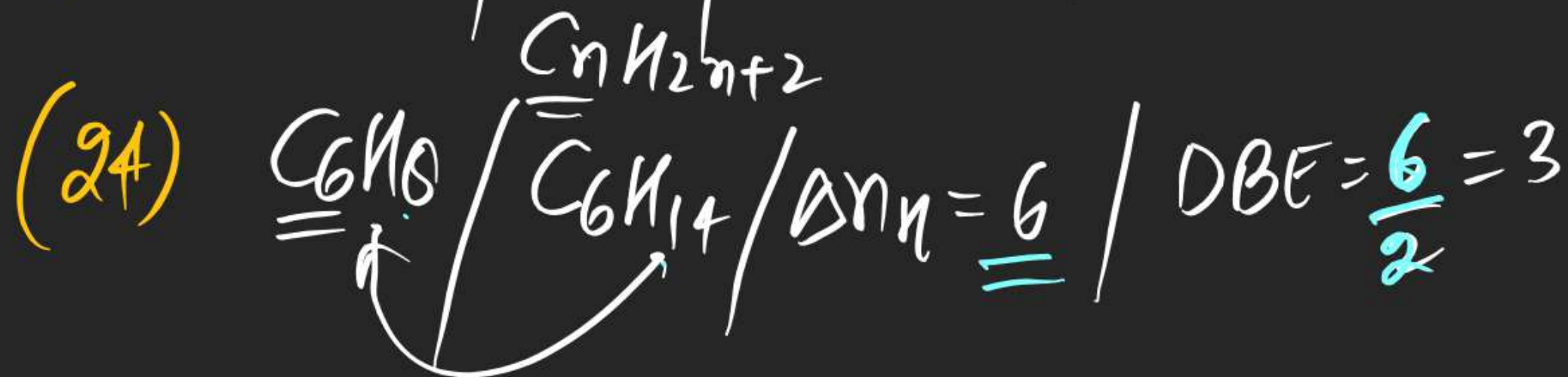
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HW Discussion (Theory Copy)

IHD = Index of Hydrogen deficiency.

DBE =

DOV = $\frac{4}{2} = 2$



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(26) $C_4H_4 / C_4H_{10} / \Delta n_H = 6 / DBE = \frac{6}{2} = 3$ $C_n H_{2n+2}$

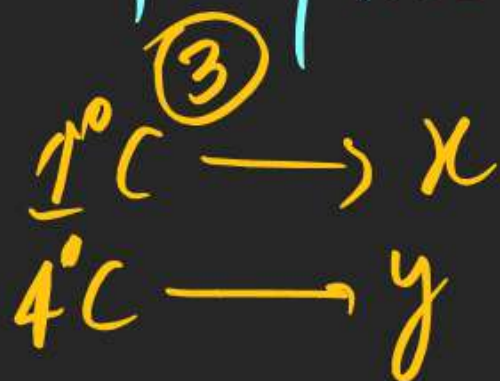
(#) A HydroCarbon alkane is having only C_8H_{18}

1° & 4° Carbon with 3 times more 1° Carbon

than 4° Carbon. Find molecular Formula

of HydroCarbon

Soln:



$x = 3y$

$n_C \downarrow$
 $= x + y$
 $= 4y$

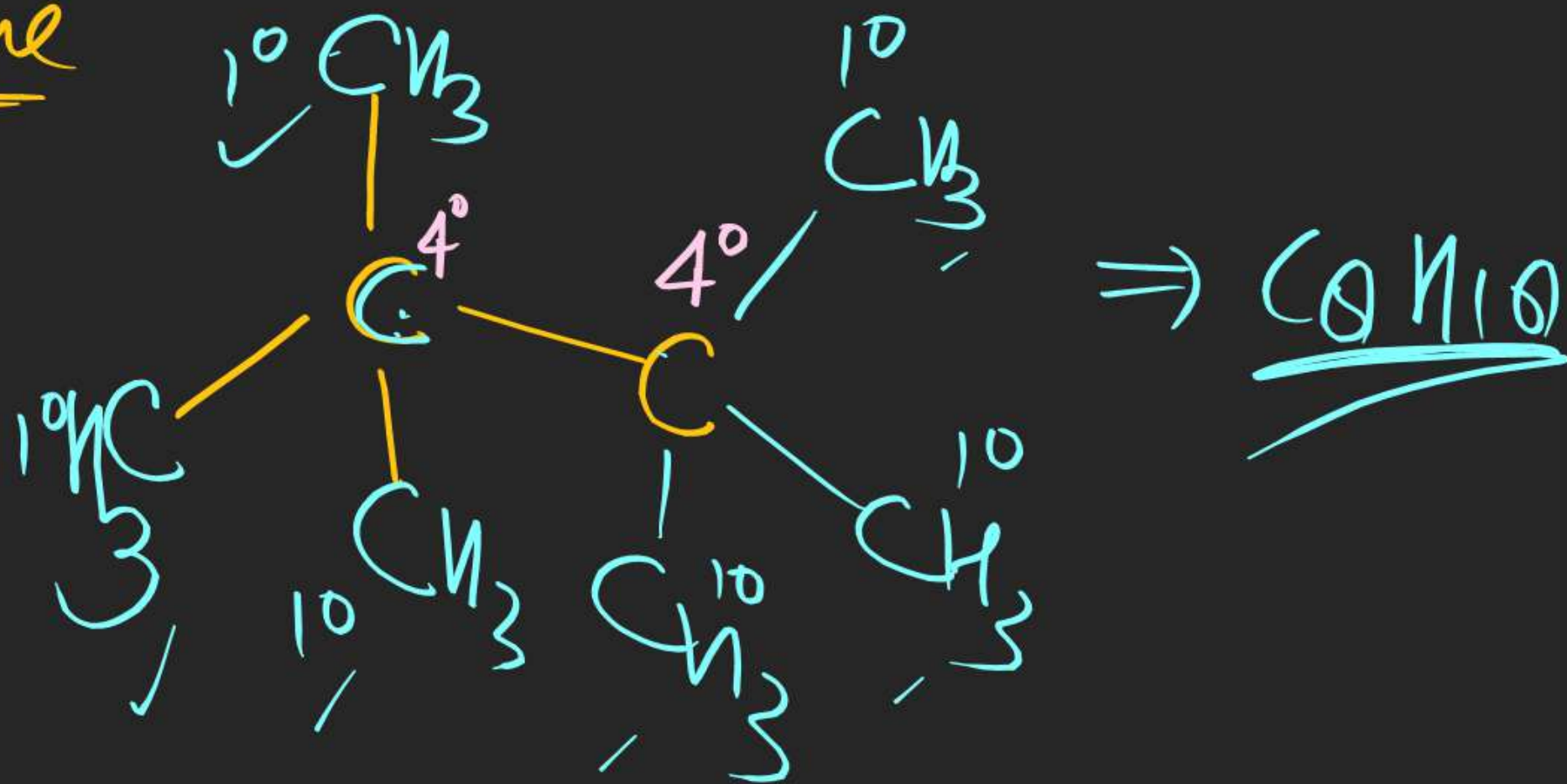
n_H
 $(4y) \times 2 + 2 = 3x$
 $8y + 2 = 3x$

$8y + 2 = 9y$

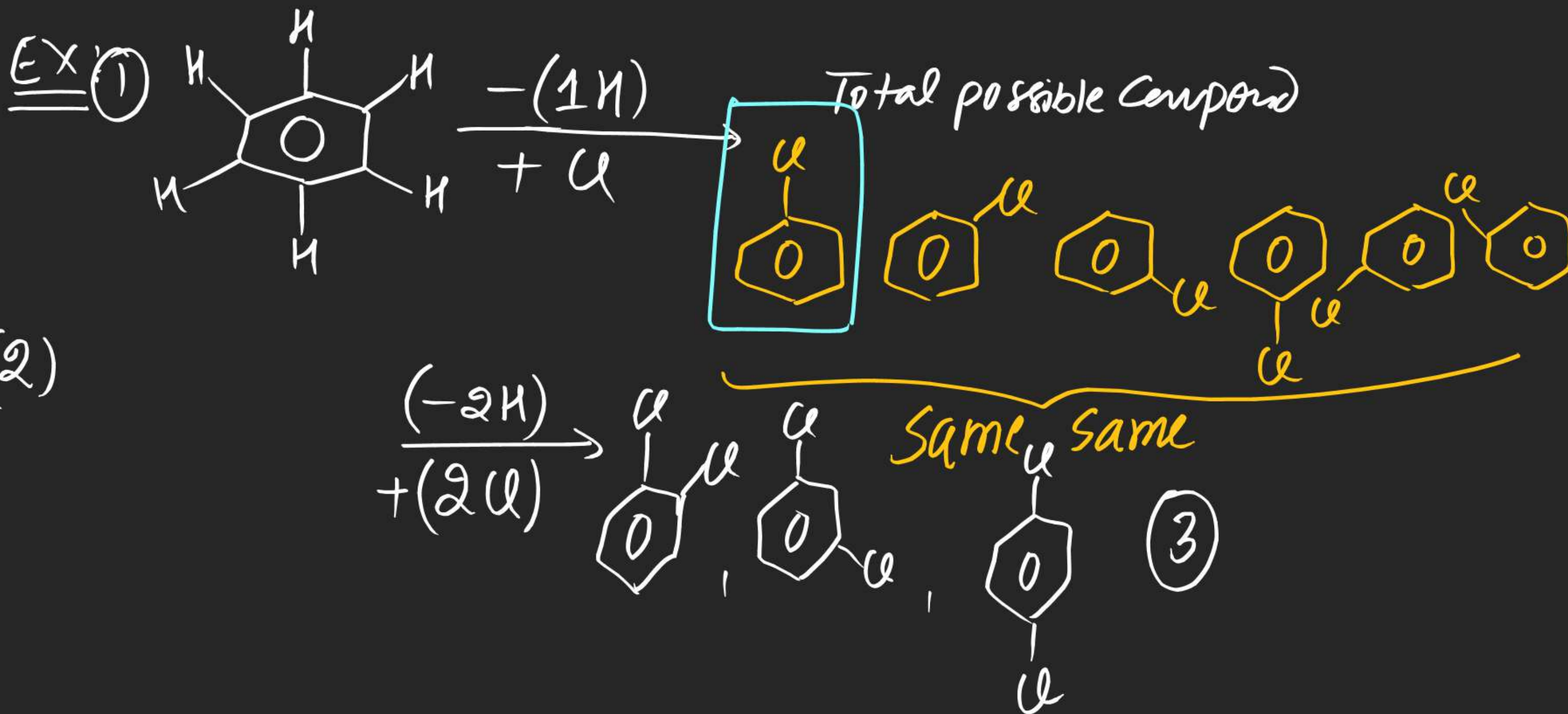
$y = 2$

$x = 6$

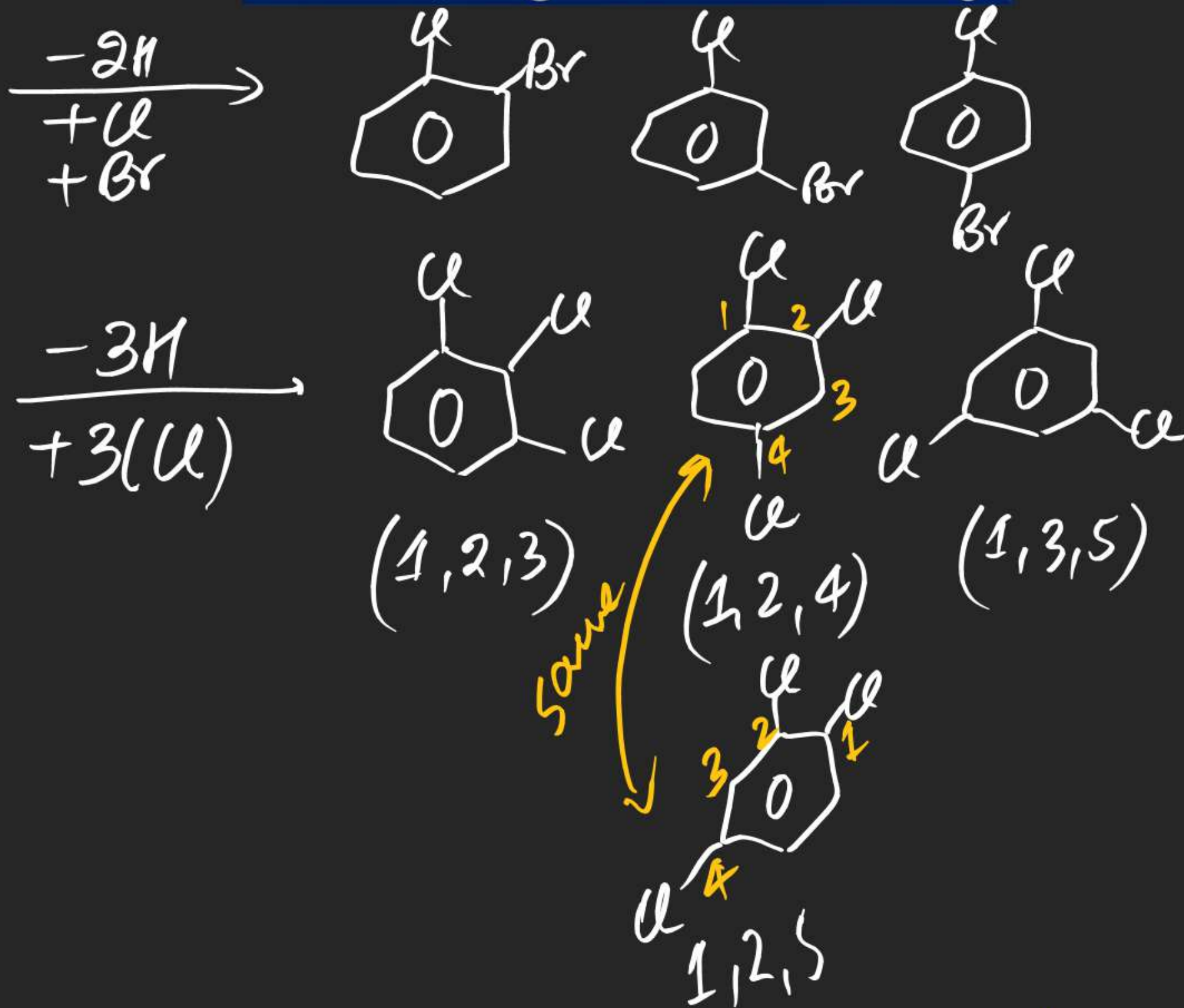
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Alkane

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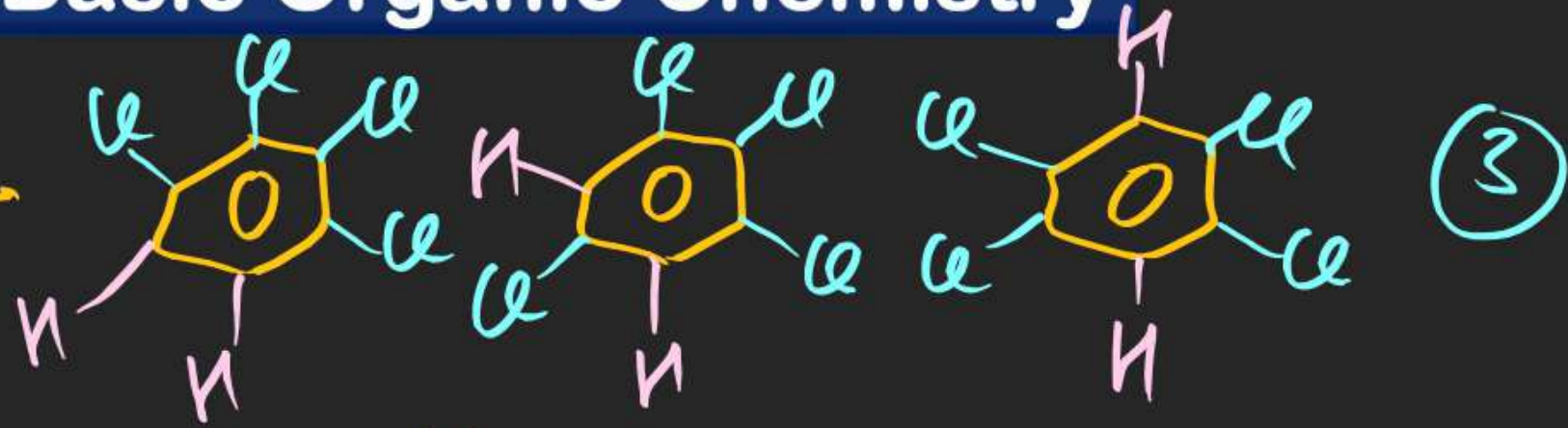


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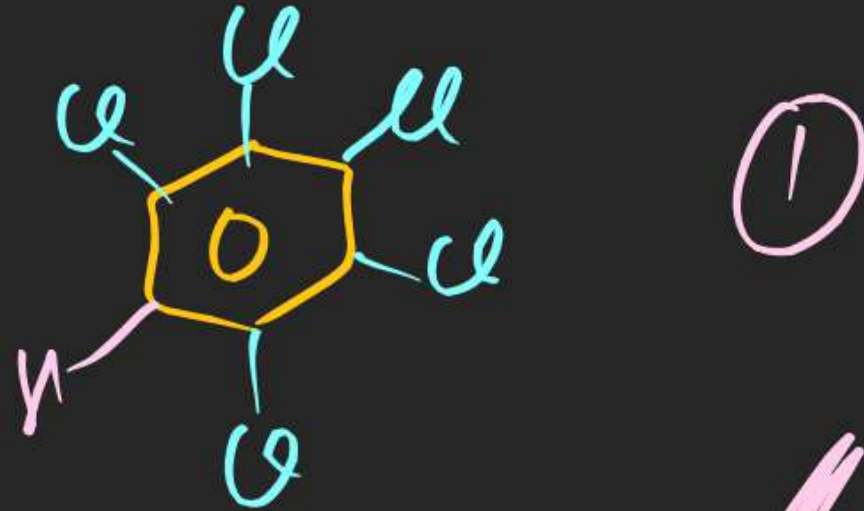
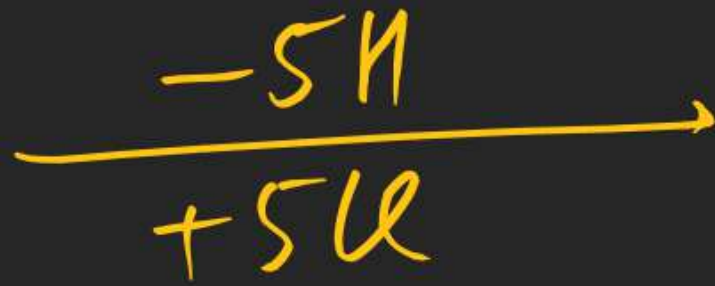


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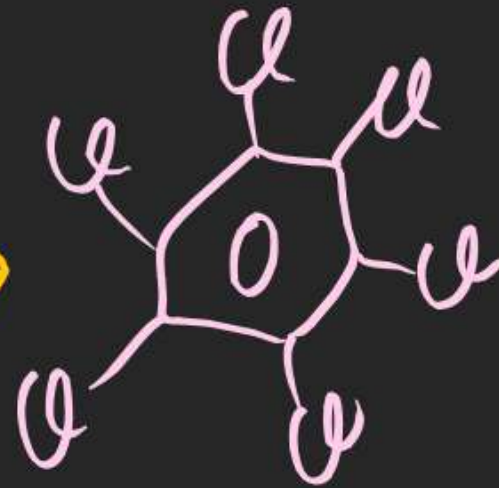
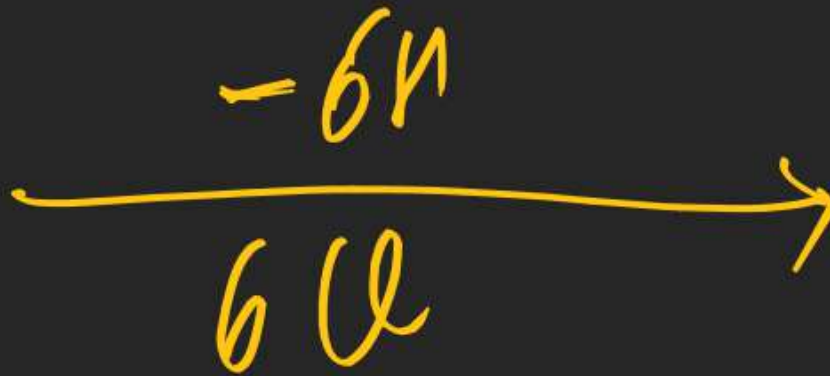
Q



Q



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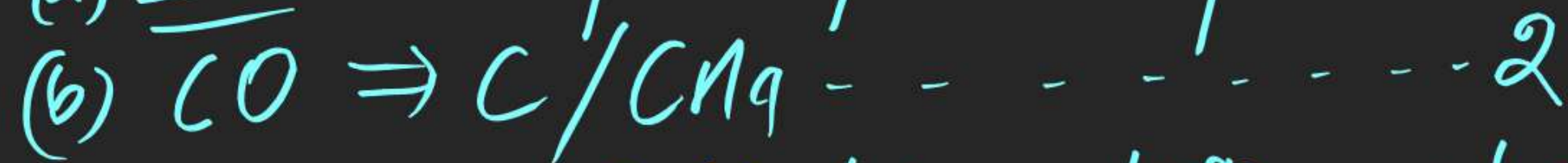
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DBE: Case (ii) In case of Bivalent atom ($-O-$)
Neglect "O"



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Case (iii) In Case of Trivalent atom like $\left(\begin{array}{c} \diagup \\ \text{N} \\ \diagdown \end{array} \right)$

\Rightarrow



Trivalent

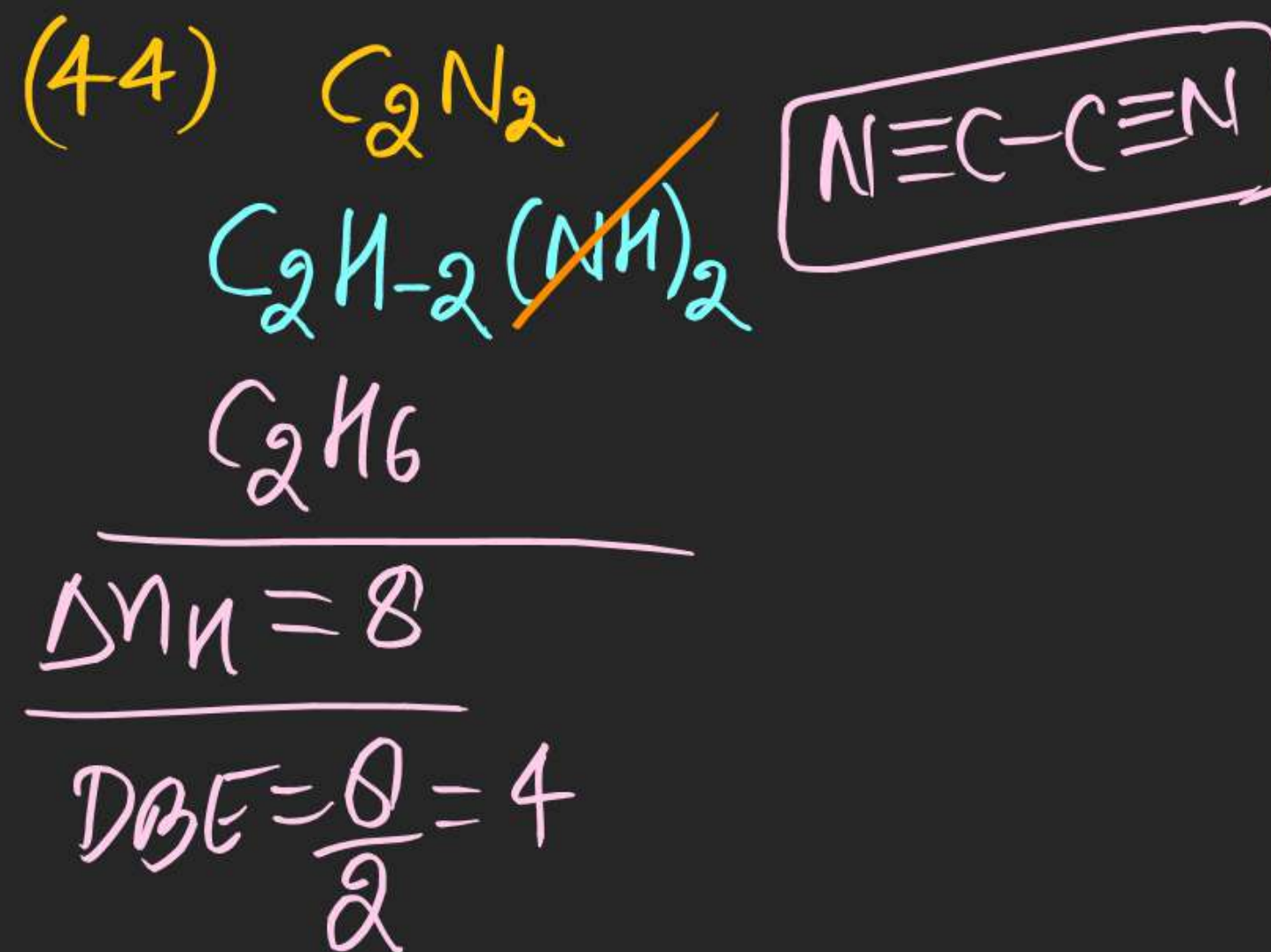
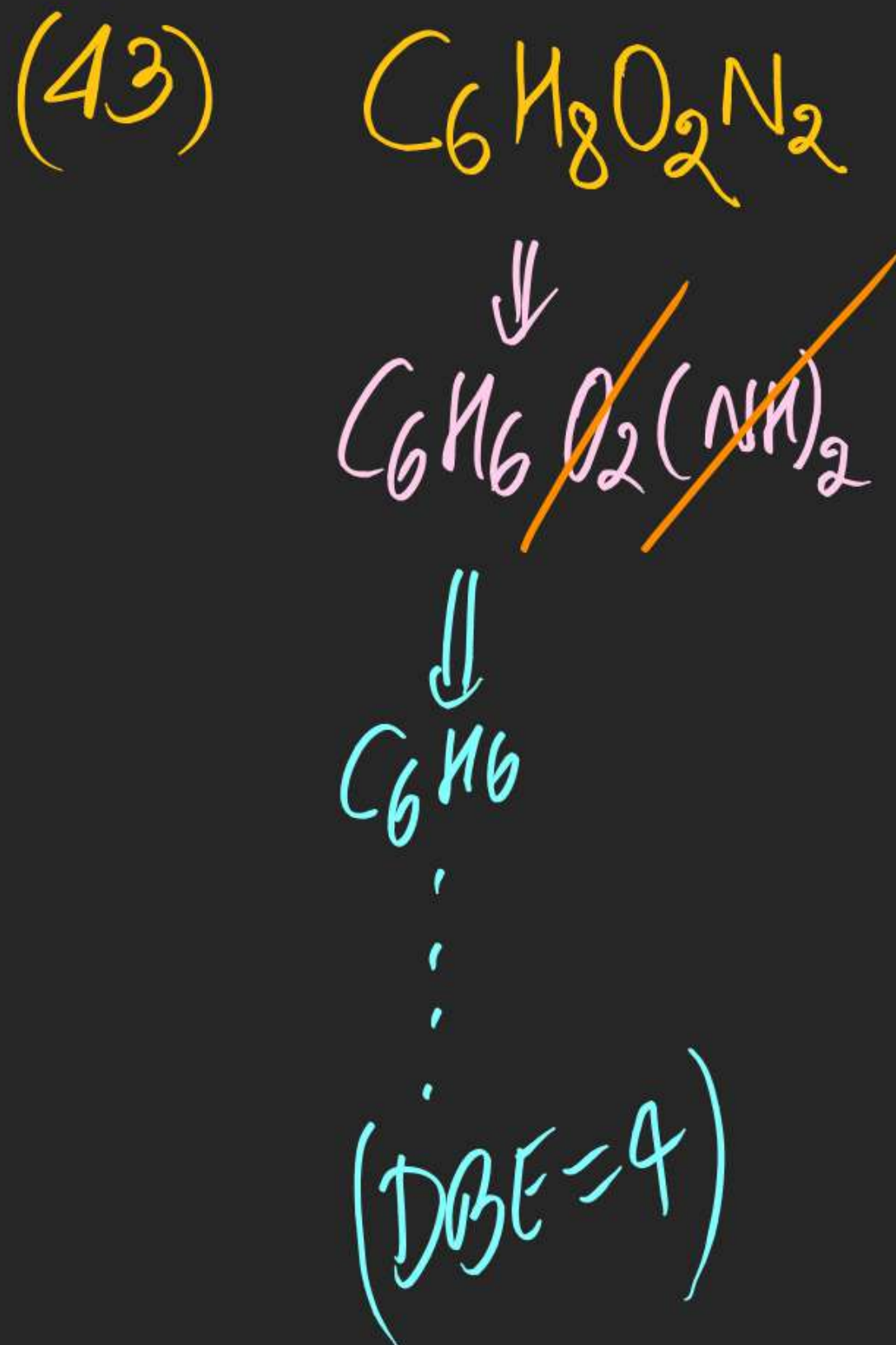


Bivalent $(-\text{NH}-)$

Neglect



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9:30 pm — 12:00 mid Night

12:00 M. Night — 6:30 AM (Sleeping Cycle)

6:30 am — 7:30 am (Ready, BF)

7:30 AM — 10:30 AM

10:30 AM — 1:30 PM