## Übung

Benennung von Alkanen Nomenklaturregeln 1. Benenne folgende Moleküle nach den Nomenklaturregeln:

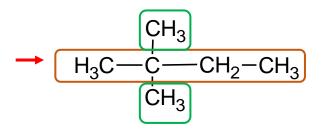
$$\begin{array}{c} \operatorname{CH_3} \\ \operatorname{H_3C--C} - \operatorname{CH_2--CH_3} \\ \operatorname{CH_3} \end{array}$$

$$\begin{array}{ccc} \operatorname{CH_3} & \operatorname{CH_3} \\ \operatorname{H_3C-CH-CH-CH-CH-CH_3} \\ \operatorname{CH_3} \end{array}$$

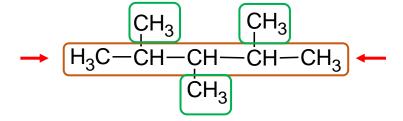
$$\begin{array}{c} \mathsf{CH_3} \\ \mathsf{CH_2} \\ \mathsf{CH_2} \\ \mathsf{H_3C} \begin{array}{c} \mathsf{-}\mathsf{C} \\ \mathsf{-}\mathsf{-}\mathsf{CH_2} \\ \mathsf{-}\mathsf{CH_2} \\ \mathsf{CH_2} \\ \mathsf{CH_3} \end{array}$$

$$\begin{array}{c} \mathsf{CH_3} \ \mathsf{CH_3} \\ \mathsf{H_3C-CH_2-CH_2-CH--CH--CH--CH_3} \\ \mathsf{CH_2} \\ \mathsf{CH_2} \\ \mathsf{CH_2} \\ \mathsf{CH_3} \end{array}$$

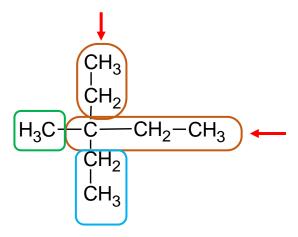
- 2. Korrigiere die folgenden falschen Namen, indem du die Strukturformel angibst und das Molekül richtig benennst:
  - 3-Propylpentan
  - 2,3-Dimethyl-5-ethylhexan



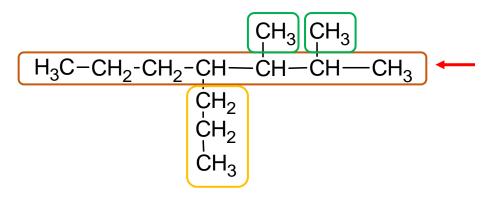
## 2,2-Dimethylbutan



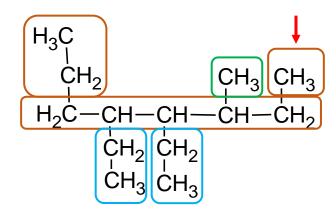
## 2,3,4-Trimethylpentan



3-Ethyl-3-methylpentan



## 2,3-Dimethyl-4-propylheptan



4,5-Diethyl-3-methyloctan

"3-Propylpentan"

$$\begin{array}{c} \longrightarrow & H_3C - CH_2 - CH_2 - CH_2 \\ \hline & CH_2 \\ \hline & CH_2 \\ \hline & CH_2 \\ \hline & CH_3 \\ \end{array}$$

Richtig: 3-Ethylhexan

"2,3-Dimethyl-5-ethylhexan"

$$\begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \begin{array}{c} & \\ & \end{array} \end{array} \\ & \begin{array}{c} & \\ & \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} CH_3 \\ \end{array} \\ \end{array} \\ \begin{array}{c} CH_2 \\ CH_3 \end{array} \\ \end{array} \\ \begin{array}{c} CH_2 \\ CH_3 \end{array}$$

Richtig: 2,3,5-Trimethylheptan