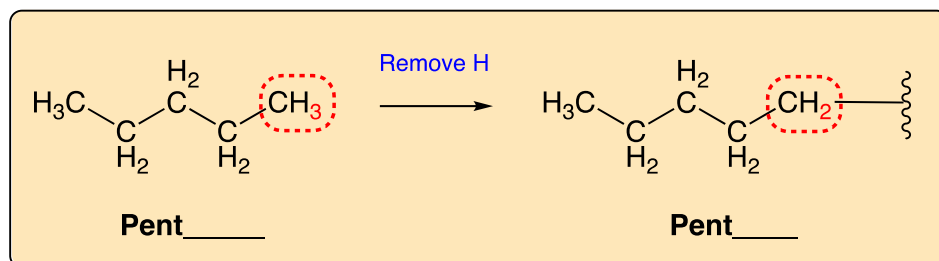


## CONCEPT: THE ALKYL GROUPS

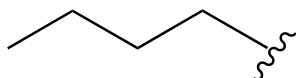
- Before learning to name more organic compounds, we must first take a look at the names of \_\_\_\_\_ groups.
  - **Alkyl Groups:** formed by removal of a \_\_\_\_\_ from an \_\_\_\_\_ compound.
    - Name alkyl group by using alkane prefixes with \_\_\_\_\_ suffix.



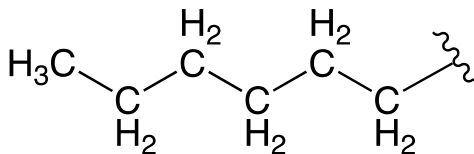
| Alkyl Prefixes |        |         |        |
|----------------|--------|---------|--------|
| # of Cs        | Prefix | # of Cs | Prefix |
| 1              | Meth-  | 4       | But-   |
| 2              | Eth-   | 5       | Pent-  |
| 3              | Prop-  | 6       | Hex-   |

**EXAMPLE:** Provide names of the alkyl groups below.

i)



ii)

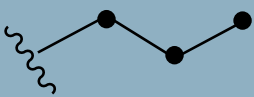
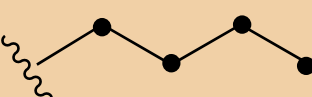
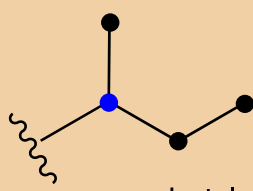
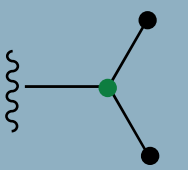
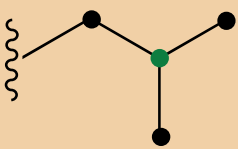
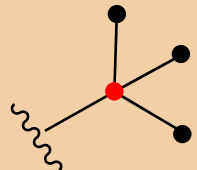


## CONCEPT: THE ALKYL GROUPS

### 3 and 4 Carbon Alkyls

- We must learn additional names for alkyl groups with 3 and 4 carbons.

□ These molecules have \_\_\_\_\_ isomers.

| Alkyl Groups  |  |  |  |
|---|--|--|--|
| 3-Carbons   | 4-Carbons  |  |  |
| <br>propyl | <br>butyl | <br>_____-butyl |  |
| <br>_____  | <br>_____ | <br>_____-butyl |  |

□ **Secondary Carbon:** C attached to \_\_\_\_ other Cs; **Tertiary Carbon:** C attached to \_\_\_\_ other Cs.

**EXAMPLE:** Provided below is a structure of an alkane. Identify names of all alkyl groups present in red.

