Three more examples that integrate all of these rules are provided in Figure AP0211, including some important notes about punctuation and handling the priority assignments for the hyphenated terms tertbutyl and sec-butyl.

## Figure AP0211

## Naming acyclic saturated hydrocarbons.




| root: | substituents: |
| :--- | :--- |
| hexadecane | 2-methyl |
|  | 9-isopropyl |
|  | 11-butyl |

11-butyl-9-isopropyl-2-methylhexadecane


| root: | substituents: |
| :--- | :--- |
| hexane | 2-methyl |
|  | 2-methyl |
|  | 3-tert-butyl |
|  | 4-methyl |
|  | 4-ethyl |

3-(tert-butyl)-4-ethyl-2,2,4-trimethylhexane
to note: when the hyphenated branched groups tert-butyl and sec-butyl are alone (i.e., no di, tri, tetra), they are placed in parentheses

$\begin{array}{ll}\text { root: } & \text { substituents: } \\ \text { dodecane } & \text { 6-(tert-butyl) } \\ & \text { 7-butyl }\end{array}$

6-(tert-butyl)-7-butyldodecane
to note: when a tie-breaker is needed between tert-butyl and butyl (or sec-butyl and butyl), the hyphenated group takes the priority; a tie between tert-butyl and sec-butyl goes to the secbutyl for alphabetical order

