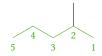
CHEM 264 Bonus Quiz

Brandon Tsang

May 15, 2020

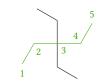
(Questions 1–7.) Provide an IUPAC name for each of the following alkanes. To do these questions, I will draw the line-angle diagram, highlight the main chain, and number the carbons.

1. $CH_3CH_2CH_2CH(CH_3)_2$



2-methylpentane

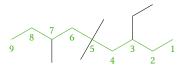
2. (CH₃CH₂)₄C



3,3-diethylpentane

3. CH₃CH₂CH₂CHCH₂CHCH₃ CH₃ CH₃

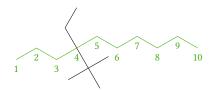
2,4-dimethylheptane



3-ethyl-5,5,7-trimethylnonane

$$CH_2CH_3$$

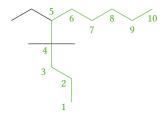
$$H_3C - \overset{\mid}{C} - CH_3$$



4-tert-butyl-4-ethyldecane

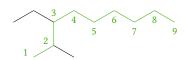
6. CH₃CH₂CHCH₂CH₂CH₂CH₂CH₃

$$H_3C - C - CH_3$$
 $CH_2CH_2CH_3$



5-ethyl-4,4-dimethyldecane

7. CH₃CH₂CHCH₂CH₂CH₂CH₂CH₂CH₃



3-ethyl-2-methylnonane

8. For the following compound, indicate the hybridization (sp, sp^2, sp^3) corresponding to each of the labeled elements (a to f).

The hybridizations are:

2