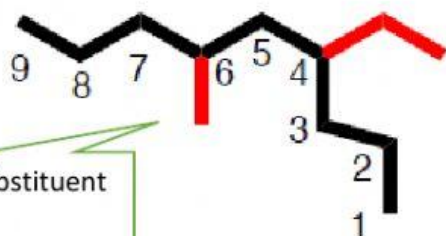


**Exercise 3: IUPAC Nomenclature of alkane/ substituents****Applying the Chain Length Rule**

1)



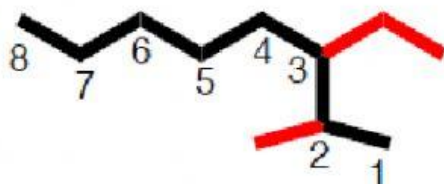
Name of substituent

Name of the substituent

IUPAC NAME:

2)

Choose parent chain @  
Longest continuous C with  
highest number of R

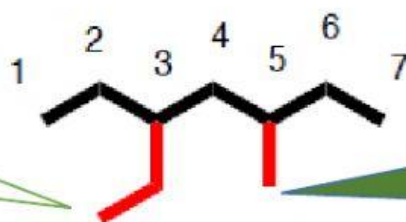


Name of substituent:

IUPAC NAME:

3)

There are **ethyl** and  
**methyl** as substituents

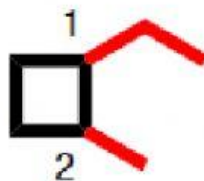


Since the locators/position of  
the substituents are similar  
either direction of the chain,  
write down IUPAC name  
according to **alphabetical order**.

IUPAC NAME:

There are **ethyl** and **methyl** as substituents

4)

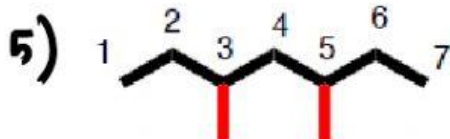


Since the locators/position of the substituents are similar either direction of the chain, write down IUPAC name according to **alphabetical order**.

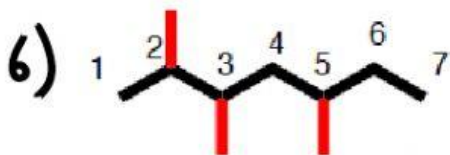
IUPAC NAME:



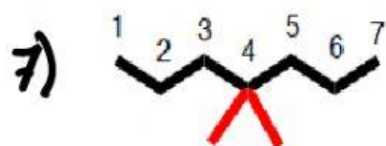
Multiples of the same substituent are given the prefixes "di", "tri", "tetra", etc. The lowest locator rule still applies.



IUPAC NAME:



IUPAC NAME:



IUPAC NAME:

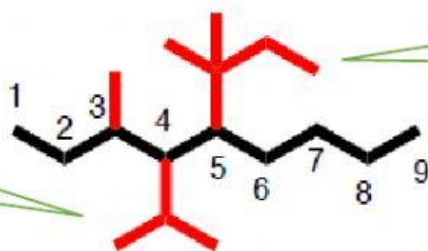
**NOT** 4-dimethylheptane  
**NOT** 4,4-methylheptane

**Extremely common mistakes!**



8)

Name of substituent:



Name of substituent:

IUPAC NAME: