Common abbreviations

methyl $CH_3 \rightarrow$ Me

ethyl $CH_3CH_2 \rightarrow$ Et

iPr isopropyl

tBu tert-butyl

iBu isobutyl

sBu sec-butyl

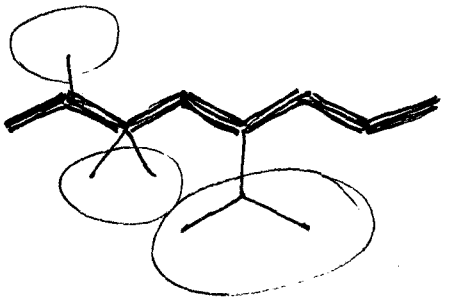
Pr propyl

$Et_2O \equiv$  $\equiv CH_3CH_2-O-CH_2CH_3$

Et Et

$MeOH \equiv CH_3OH$

Branched Alkanes



1. Find longest chain.
   => base name

octane

2. Identify the substituents

three methyl groups
one isopropyl group

3. Number the base chain so as to get the lowest set of #s for substituents.
   (#s called locants)

L→R: 2, 3, 5

R→L: 4, 6, 7

4. Put it together:
   a. combine like substit.
   b. alphabetize substs.
   c. numbers precede their assodated subst.

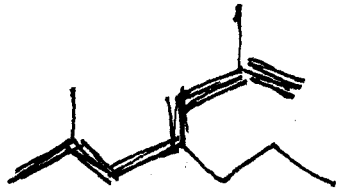
e.g., trimethyl

isopropyl trimethyl octane

also; one number for every subst.

d. separate numbers w/ commas
separate a number + letter w/ dash.

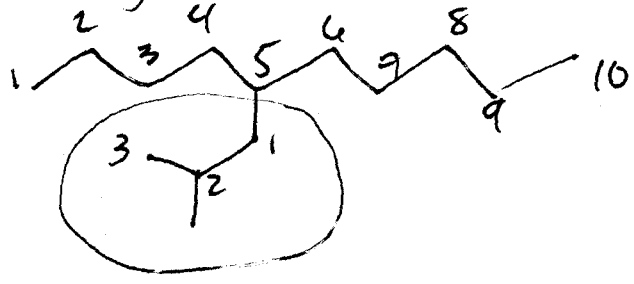
* 5-isopropyl-2,3,3-trimethyloctane



If >1 chain of same length, choose the one w/ more substs

2,6-dimethyl-4-propyl heptane

Naming branched alkyl substs.



a decane

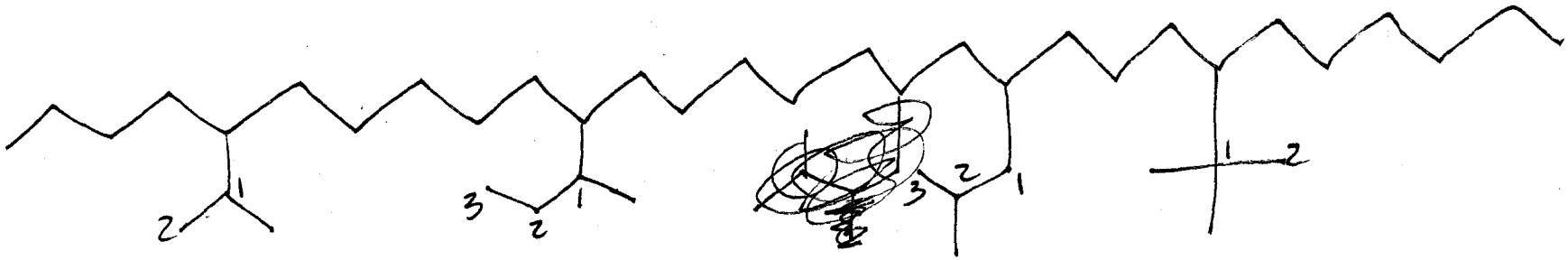
5-( ) decane

focus on subst. Start @ pt. of attachment-

find longest chain; find substs. on that chain - use #s to locate them, just as before.

This is a 2-methylpropyl group.

5-(2-methylpropyl)decane



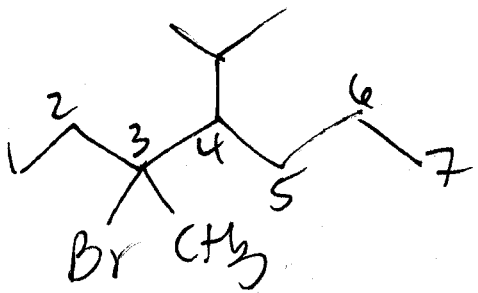
a. isopropyl sec-butyl isobutyl tert-butyl

b. (1-methylethyl) (1-methylpropyl) (2-methylpropyl) (1,1-dimethylethyl)

Alkyl Halide Nomenclature - just like alkanes

Cl - chloro I - iodo

Br - bromo F - fluoro



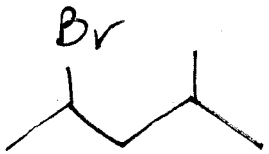
heptane

3-bromo

3-methyl

4-isopropyl

3-bromo-4-isopropyl-3-methylheptane



2-bromo-4-methylpentane

is marginally better than

4-bromo-2-methylpentane

Alcohols

cyclo alkanes + cyclic alcohols

Bicyclic compounds

alkenes

alkynes