

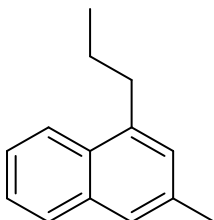
## CHEM HELP *ASAP*

### Organic Chemistry Problem Set Solutions

#### Naming Branched Alkyl Groups

Instructions: The molecules below require naming of branched alkyl groups. The first six have the branched group on the 1-position of a ring system called 3-methylnaphthalene ring. The last two compounds have branched alkyl groups off of longer alkane chains. Provide IUPAC names for these structures.

Sample naphthalene name:



3-methyl-1-propylnaphthalene

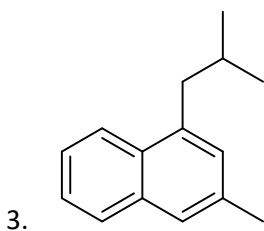
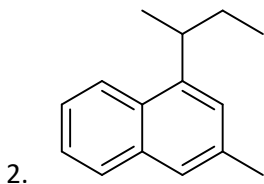
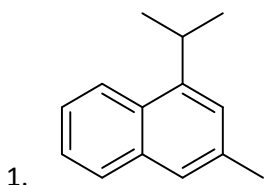
Suggested video:

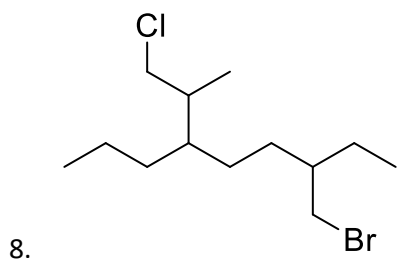
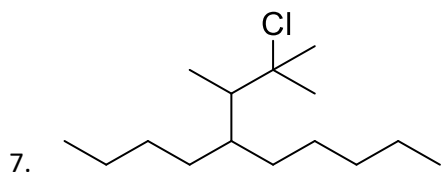
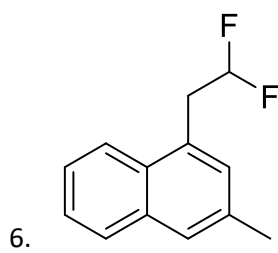
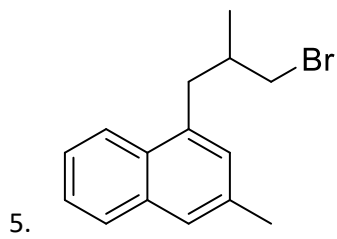
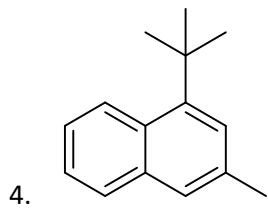
[https://www.youtube.com/watch?v=QcesKH\\_QWhg](https://www.youtube.com/watch?v=QcesKH_QWhg)

YouTube video of answered questions:

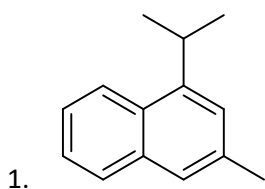
<https://youtu.be/loFjrHuBLWw>

Questions:



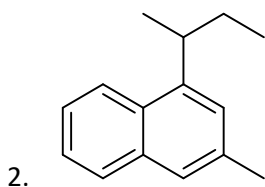


Solutions:



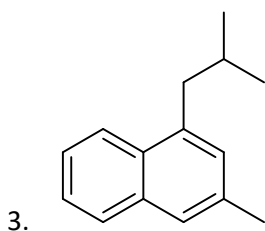
1-isopropyl-3-methylnaphthalene

3-methyl-1-(1-methylethyl)naphthalene



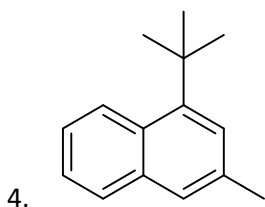
1-sec-butyl-3-methylnaphthalene

3-methyl-1-(1-methylpropyl)naphthalene



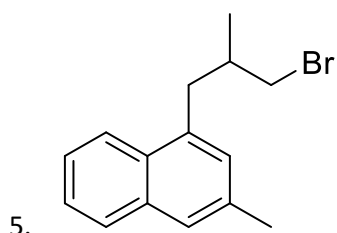
1-isobutyl-3-methylnaphthalene

3-methyl-1-(2-methylpropyl)naphthalene

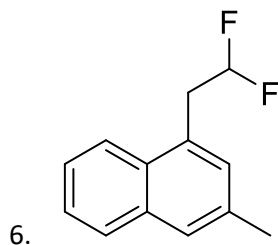


1-tert-butyl-3-methylnaphthalene

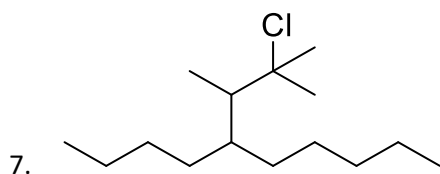
1-(1,1-dimethylethyl)-3-methylnaphthalene



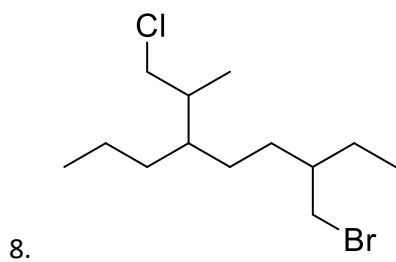
1-(3-bromo-1-methylpropyl)-3-methylnaphthalene



1-(2,2-difluoroethyl)-3-methylnaphthalene



5-(2-chloro-1,2-dimethylpropyl)decane



3-(bromomethyl)-6-(2-chloro-1-methylethyl)nonane