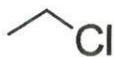


**Organic Chem 3514      Alfred State**  
**Notes and Exercise on naming alkyl halides**

**0) Notes:**

Common alkyl halide names to know:



Ethyl chloride

chloroethane  
IUPAC



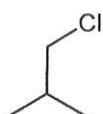
n-butyl chloride

1-chlorobutane  
IUPAC



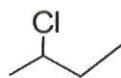
Isopropyl chloride

2-chloropropane  
IUPAC



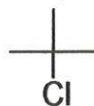
Isobutyl chloride

— IUPAC —



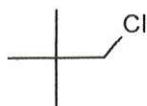
Sec-butyl chloride

2-chlorobutane  
IUPAC



Tert-butyl chloride

2-chloro-2-methylpropane  
IUPAC

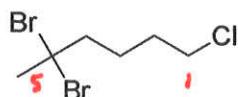


Neopentyl chloride

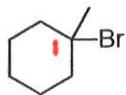
1-chloro-2,2-dimethylpropane  
IUPAC

**1)** Supply the equivalent IUPAC names for the alkyl halides above (see p. 274 rules)

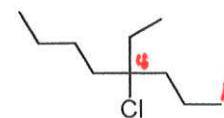
**2)** Supply IUPAC names to the compounds below:



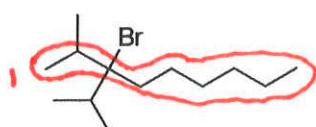
5,5-dibromo-1-chlorohexane



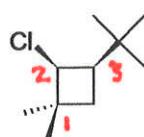
1-bromo-1-methylcyclohexane



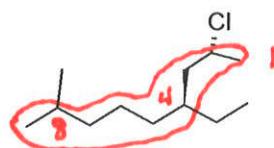
4-chloro-4-ethyloctane



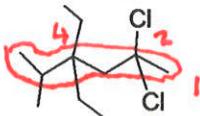
3-bromo-3-(1-methylethyl)-2-methylnonane



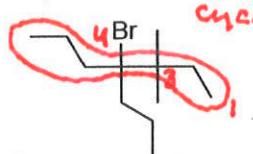
2-chloro-3-(2,2-dimethylethyl)cyclobutane



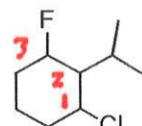
2-chloro-4-ethyl-8-methylnonane



2,2-dichloro-4,4-diethyl-5-methylhexane



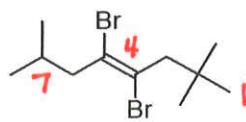
4-bromo-3,3-dimethyl-4-propylheptane



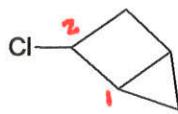
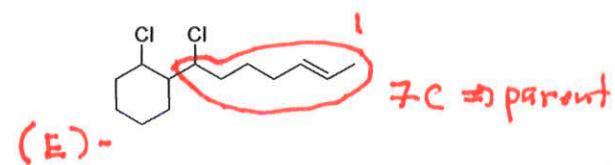
1-chloro-2-(1-methylethyl)-3-fluorocyclohexane



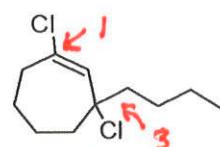
3-chloro-1-methylcyclopentene



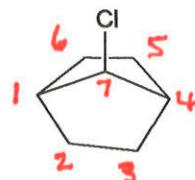
(E)-  
4,5-dibromo-(2,2,7)-trimethyl-4-octene  
(include E,Z)



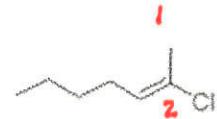
2-chlorobicyclo[2.1.0]pentane



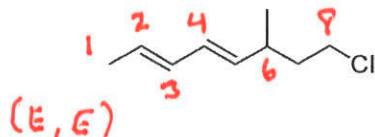
3-butyl-1,3-dichloro-cycloheptene



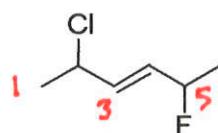
7-chlorobicyclo[2.2.1]heptane



(E)-  
2-chloro-2-heptene  
(include E,Z)



(E,G)  
8-chloro-6-methyl-2,4-octadiene  
(include E,Z)



(E)-  
2-chloro-5-fluoro-3-hexene.  
(include E,Z)

→ 2,4-octadiene