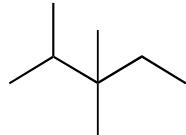


## PRACTICE PROBLEMS UNIT 4

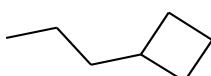
### 4A. Determine if alkane carbons are $1^\circ$ , $2^\circ$ , $3^\circ$ or $4^\circ$

4A.1 Identify carbons in the following molecules as being  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$  or  $4^\circ$

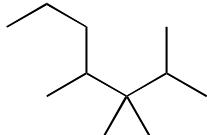
a)



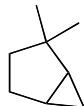
b)



c)



d)



### 4B. Name alkanes, cycloalkanes and alkyl halides

4B.1 Draw the structure of the following molecules.

a) 1-Bromo-2,2-dichlorobutane

b) 7-iodo-2,2,3,5-tetramethyl octane

c) 5-*t*-butyl-3-methyl nonane

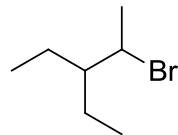
d) *trans*-1-bromo-3-iodo cyclopentane

e) isobutyl cyclobutane

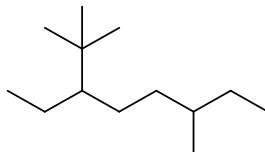
f) *cis*-1-methyl-2-propyl cycloheptane

4B.2 Name the following compounds.

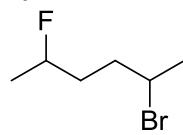
a)



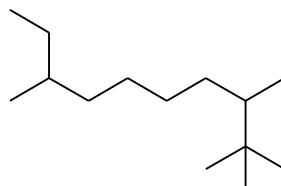
e)



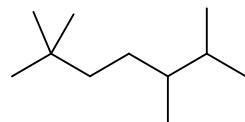
b)



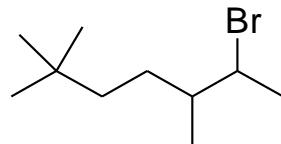
f)



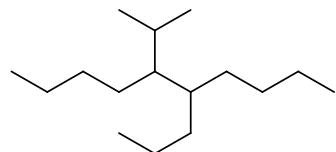
c)



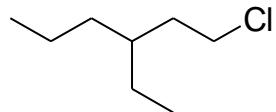
g)



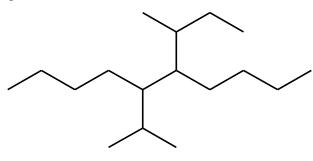
d)



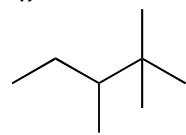
h)



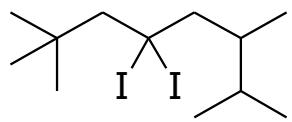
i)



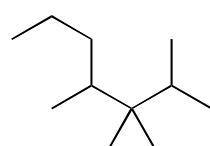
q)



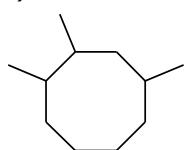
j)



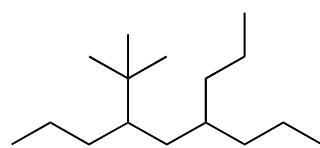
r)



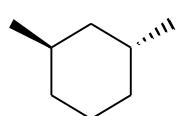
k)



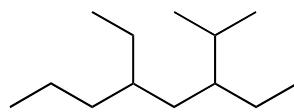
s)



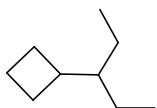
l)



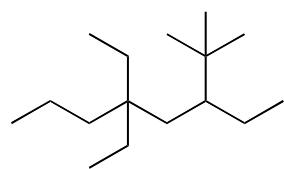
t)



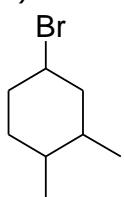
m)



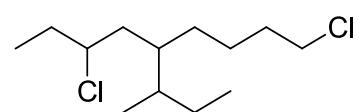
u)



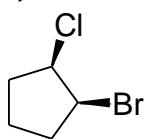
n)



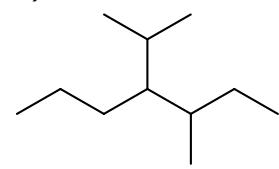
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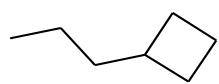
o)



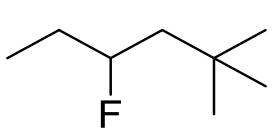
w)



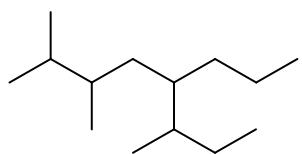
p)



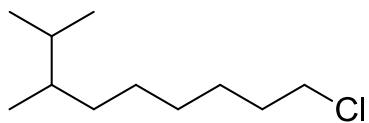
x)



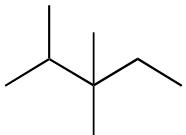
y)



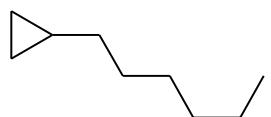
z)



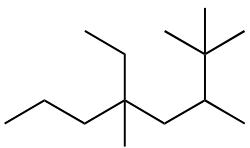
aa)



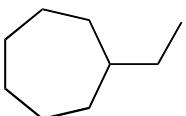
bb)



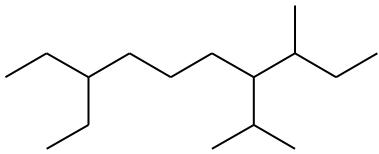
cc)



dd)



ee)



ff)

