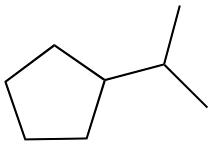
Recitation Week 6 2/20/13

1. Draw the molecules with these names:

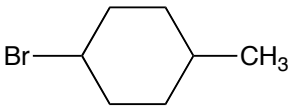
(c) 1-octen-7-yne (d) *cis*-3-hexene (e) *trans*-3-hexene

2. Name these molecules

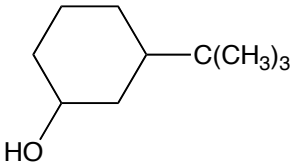
(a)



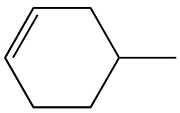
(b)



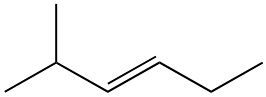

(c)



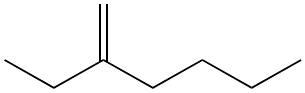

(d)



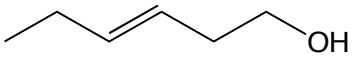
(e)



(f)



(g)




(h)

$CH_3CH_2CH_2CH_2C{\equiv}CCH_3$

3. How many degrees of unsaturation would a molecule with each of these formulas have? Draw or name an example of a compound with each formula.

(a) $C_6H_{12}$ (b) $C_4H_6$ (c) $C_{10}H_{22}$

(d) $C_4H_8O$ (e) $C_5H_8Cl_2$

4. The following compounds have been named incorrectly. Draw each molecule, and then give its correct IUPAC name.

(a) 4-bromo-3-pentanol

(b) 5-methylcyclohexanol

(c) 2-ethylpentane

(d) 2-methyl-2-penten-4-ol

(e) 5-(2,2-dimethylethyl)decane

5. Draw Newman projections looking down the $C_2$–$C_3$ bond showing the most stable conformations of each of the following:

(a) propane

(b) butane

(c) pentane

(d) 2-methylbutane