

Name: \_\_\_\_\_

Date: \_\_\_\_\_

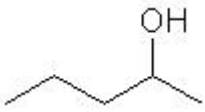
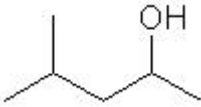
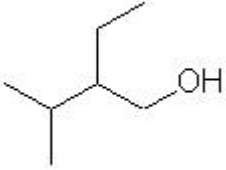
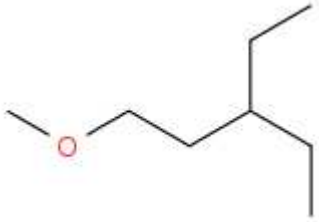
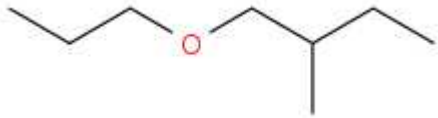
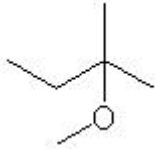
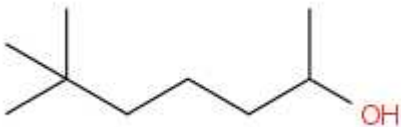
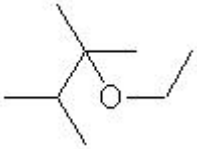
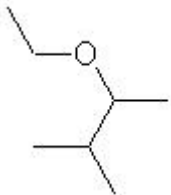
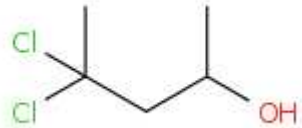
[5 pt] 1. Complete the following table:

Property	Alcohols	Ethers
Functional Group		
Naming "ending"		
Location (Y/N)		
IMF Present		
Shape/Bond Angle		

[5 pt] 2. Draw **AND** label a picture illustrating the difference between a primary ( $1^\circ$ ), secondary ( $2^\circ$ ), tertiary ( $3^\circ$ ) alcohol. Include both a Lewis structure **AND** line drawing. Why are there no Quaternary alcohols?

CHE 102 - Homework - Ch 22a

[20 pt] 3. Name the following molecules using IUPAC nomenclature:

<p>(a) </p>	<p>(b) </p>
<p>(c) </p>	<p>(d) </p>
<p>(e) </p>	<p>(f) </p>
<p>(g) </p>	<p>(h) </p>
<p>(i) </p>	<p>(j) </p>

CHE 102 - Homework - Ch 22a

[20 pt] 4. Draw the following molecules using Lewis Structure or Line Drawings:

(a) 2-ethoxybutane	(b) 2-ethoxy-4-methylpentane
(c) 1-ethoxy-2-ethylbutane	(d) 2-methoxy-2-methylbutane
(e) 2-ethoxy-3-methylbutane	(f) 2-methyl-3-pentanol
(g) 3,3-dichloro-4-propyl-1-octanol	(h) 3-ethoxy-1-hexanol
(i) 4,4-dimethyl-3-methoxy-2-pentanol	(j) 2,3-dichloro-4-ethyl-7-fluoro-3,4-dimethyl-1-decanol

