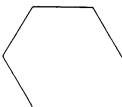
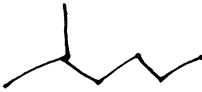
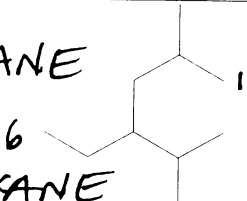
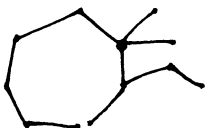
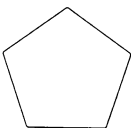
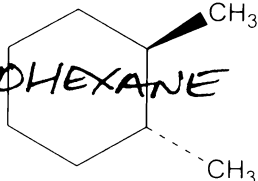
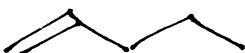


1. Complete the following table.

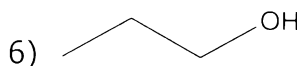
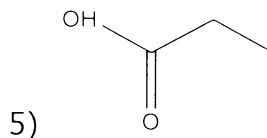
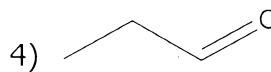
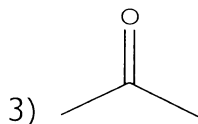
	NAME	FORMULA
A	PENTANE	
B	2-methylhexane	
C	2-METHYL-4-ISOPROPYLHEXANE 3-ETHYL-2,5-DIMETHYLHEXANE	
D	1-ethyl-2,2-dimethylcycloheptane	
E	CYCLOPENTANE	
F	trans-1,2-DIMETHYLCYCLOHEXANE	
G	1-pentene	

H	2-ETHYL-1-PENTENE	
I	2-butyne	
J	3-METHYL-6-ISOPROPYLCYCLOHEXENE	

2. Indicate which formula (A, B, etc.) belongs with each name (a., b., etc.).

1)  $C_3H_8$

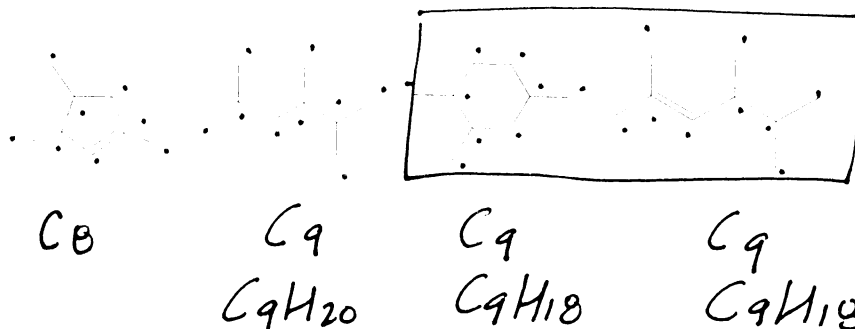
2)  $C_3H_6$



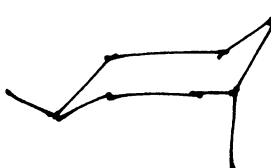
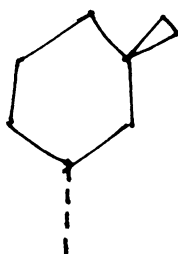
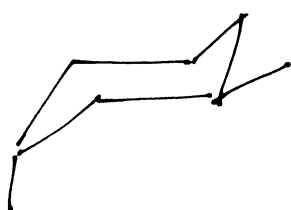
a. propanal.....	(ALDEHYDE)	4
b. propane.....	(ALKANE, $C_nH_{2n+2}$ )	1
c. propanoic acid.....		5
d. 1-propanol.....	(ALCOHOL)	6
e. propanone.....	(KETONE)	3
f. propene.....	(ALKENE, $C_nH_{2n}$ )	2

Unless otherwise specified, each question is worth 4 points.

3. Circle the compounds that are constitutional isomers.



4. Consider the most stable conformation of *trans*-1,3-dimethylcyclohexane. If one of the substituents is axial (circle one), then the other methyl group must be axial / equatorial (circle one). (You may want to use the space below to make sketches.)



ax → eq  
or eq → ax

5. List the following compounds from lowest to highest boiling points.

- a. hexane
- b. 2,2-dimethylbutane
- c. butane
- d. octane

$C_6$   
 $C_6$   
 $C_4$   
 $C_8$

