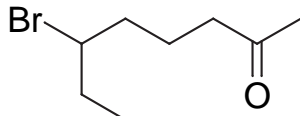


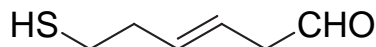
**for more practice, see 1991-1999 PS#2's at:  
<http://valhalla.chem.udel.edu/C331.html>**

1. Draw all of the dibromo derivatives of 1-pentene.  
(use extra paper)
2. Give IUPAC names for the following

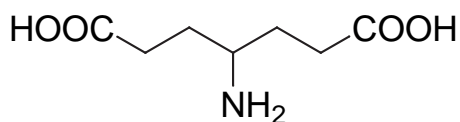
a



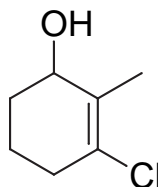
b



c



d



3. Draw the structures of the following

a. 3-bromo-2,5,5-trimethyl-2-cyclohexenone

b. (Z)-6-amino-4-oxo-2-hexenal

c. 2-mercapto-4-penten-1-ol

4. The answer that is presented for Problem 1-19b is incorrect. Draw the correct molecular orbital picture for the propyne dianion. It will be easier if you consider the  $\sigma$  and  $\pi$  systems separately.

(use extra paper)