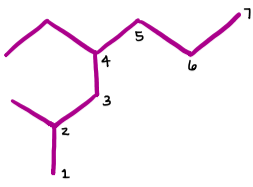


# Chem 2C Assignment 7 KEY

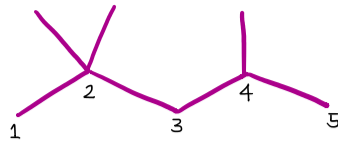
Thursday, June 6, 2019 8:41 AM

1. (a) 3-isobutylhexane

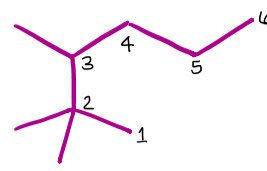


Correct Name: 4-ethyl-2-methylheptane

(b) 2,2,4-trimethylpentane



(c) 2-tert-butylpentane



Correct Name: 2,2,3-trimethylhexane

2. 1,2-dichloroethane:

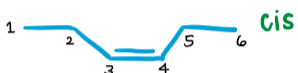
Note:  $\text{Cl}-\overset{\text{H}}{\underset{\text{H}}{\text{C}}}-\overset{\text{H}}{\underset{\text{H}}{\text{C}}}-\text{Cl} = \text{Cl}-\overset{\text{H}}{\underset{\text{H}}{\text{C}}}-\overset{\text{Cl}}{\underset{\text{H}}{\text{C}}}-\text{H} = \text{H}-\overset{\text{H}}{\underset{\text{Cl}}{\text{C}}}-\overset{\text{Cl}}{\underset{\text{H}}{\text{C}}}-\text{H}$  (because of free rotation about bond)

Isomer = 1,1-dichloroethane: OR  $\text{Cl}-\overset{\text{Cl}}{\underset{\text{H}}{\text{C}}}-\overset{\text{H}}{\underset{\text{H}}{\text{C}}}-\text{H}$  (Cl atoms bonded to same C)

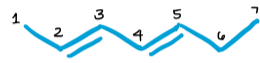
3. (a) 3-hexene



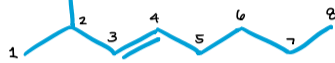
OR



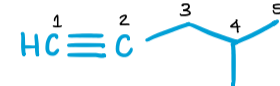
(b) 2,4-heptadiene



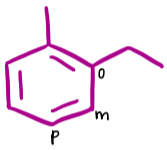
(c) 2-methyl-3-octene



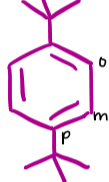
(d) 4-methyl-1-pentyne



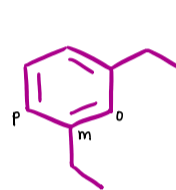
4. (a) o-ethyltoluene



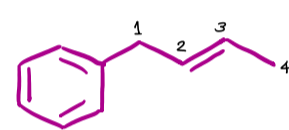
(b) p-di-tert-butylbenzene



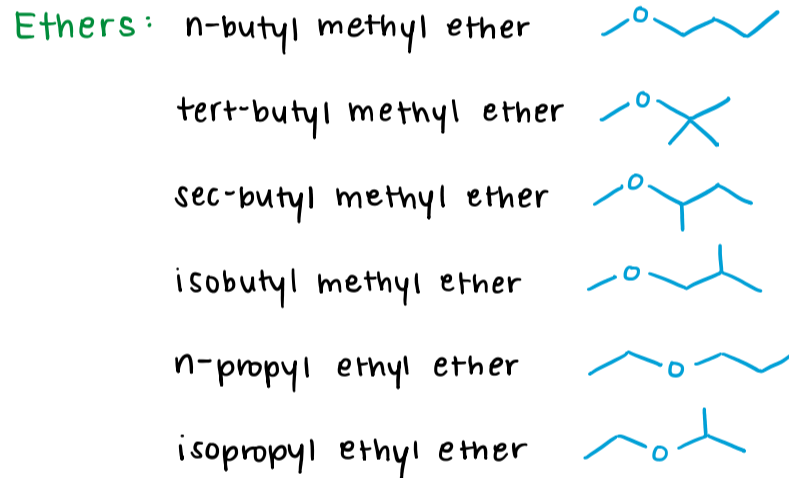
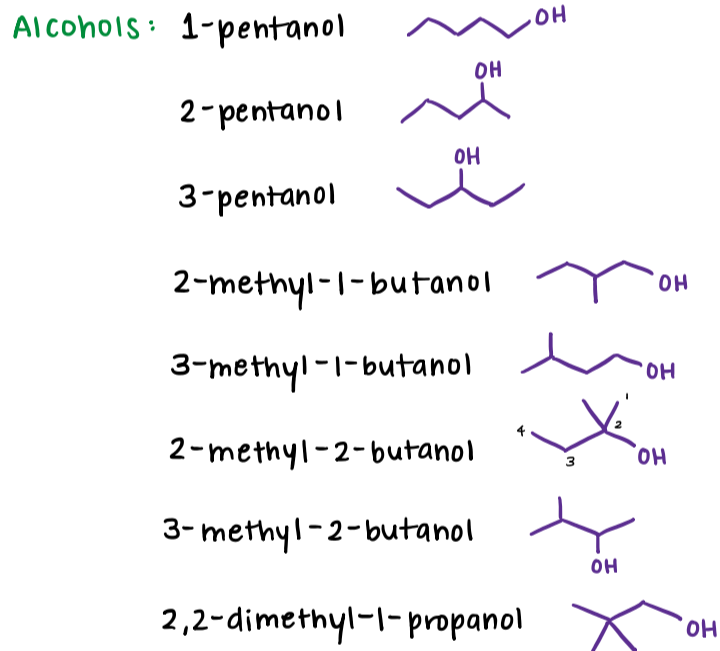
(c) m-di-ethylbenzene



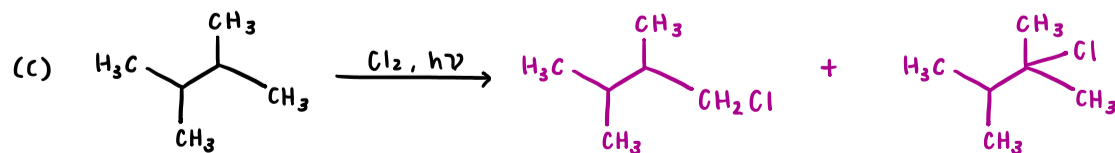
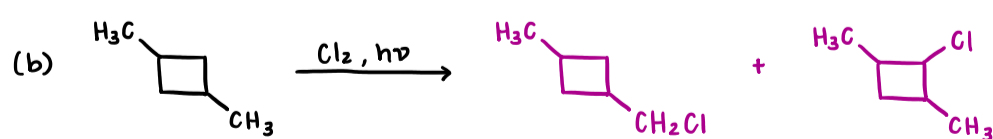
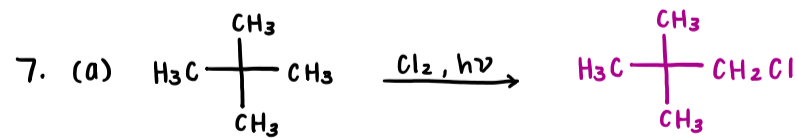
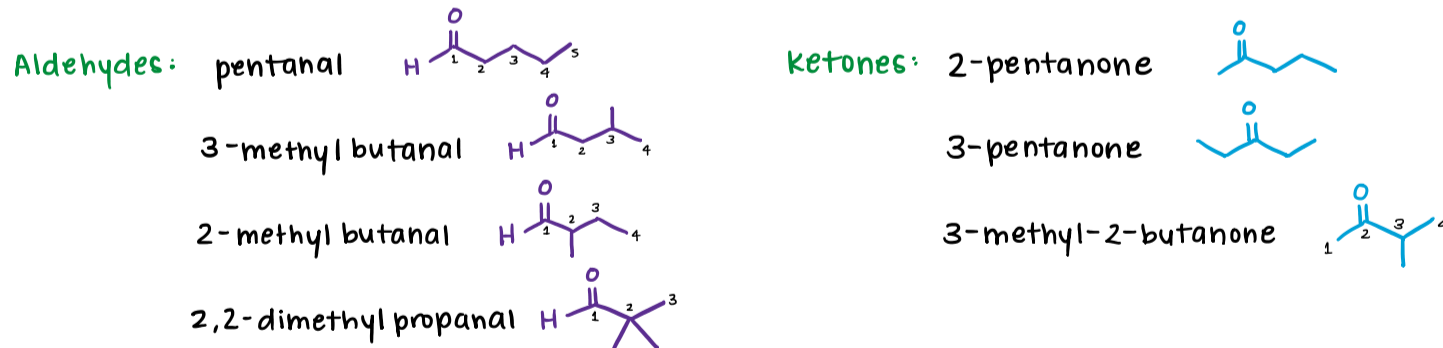
(d) 1-phenyl-2-butene



5.  $\text{C}_5\text{H}_{12}\text{O}$



6.  $\text{C}_5\text{H}_{10}\text{O}$



8. (i) 2-bromoaniline

(ii) cis-1,2-dichlorocyclohexane

(iii) 4,5-dimethyl-2-heptene /  $\text{CH}_3\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}(\text{CH}_3)\text{CH}=\text{CHCH}_3$

(iv) 6-aminohexanoic acid