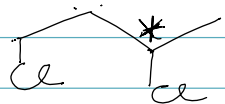


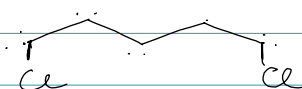
Stereochemistry - 1

1) Which of the following molecules are chiral

a) 1,3-dichlorobutane

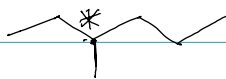


b) 1,5-dichloropentane

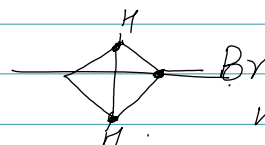


no chiral center.

c) 3-methylhexane



d) 2-bromobicyclo[1.1.0]butane

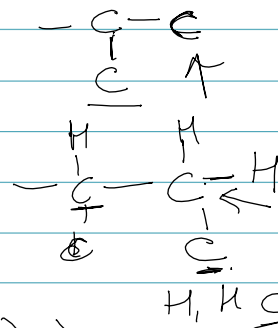
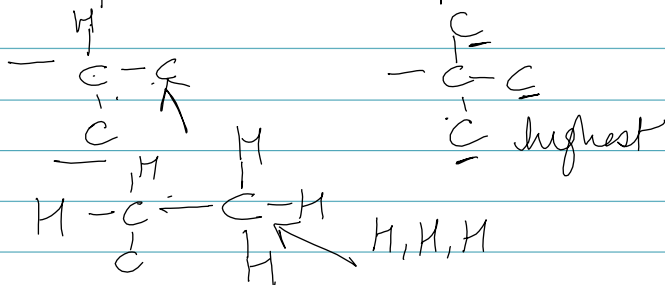


no chiral center

2) Assign priorities

a) $-\text{Cl}$, $-\text{OH}$, $-\text{SH}$, $-\text{H}$
 highest $-\text{Cl} > -\text{SH} > -\text{OH} > -\text{H}$ lowest

b) $-\text{CH}(\text{CH}_3)_2$, $-\text{C}(\text{CH}_3)_3$, $-\text{H}$, $-\text{C}=\text{CH}_2$
 lowest



$-\text{C}(\text{CH}_3)_3 > -\text{CH}=\text{CH}_2 > -\text{CH}(\text{CH}_3)_2 > -\text{H}$