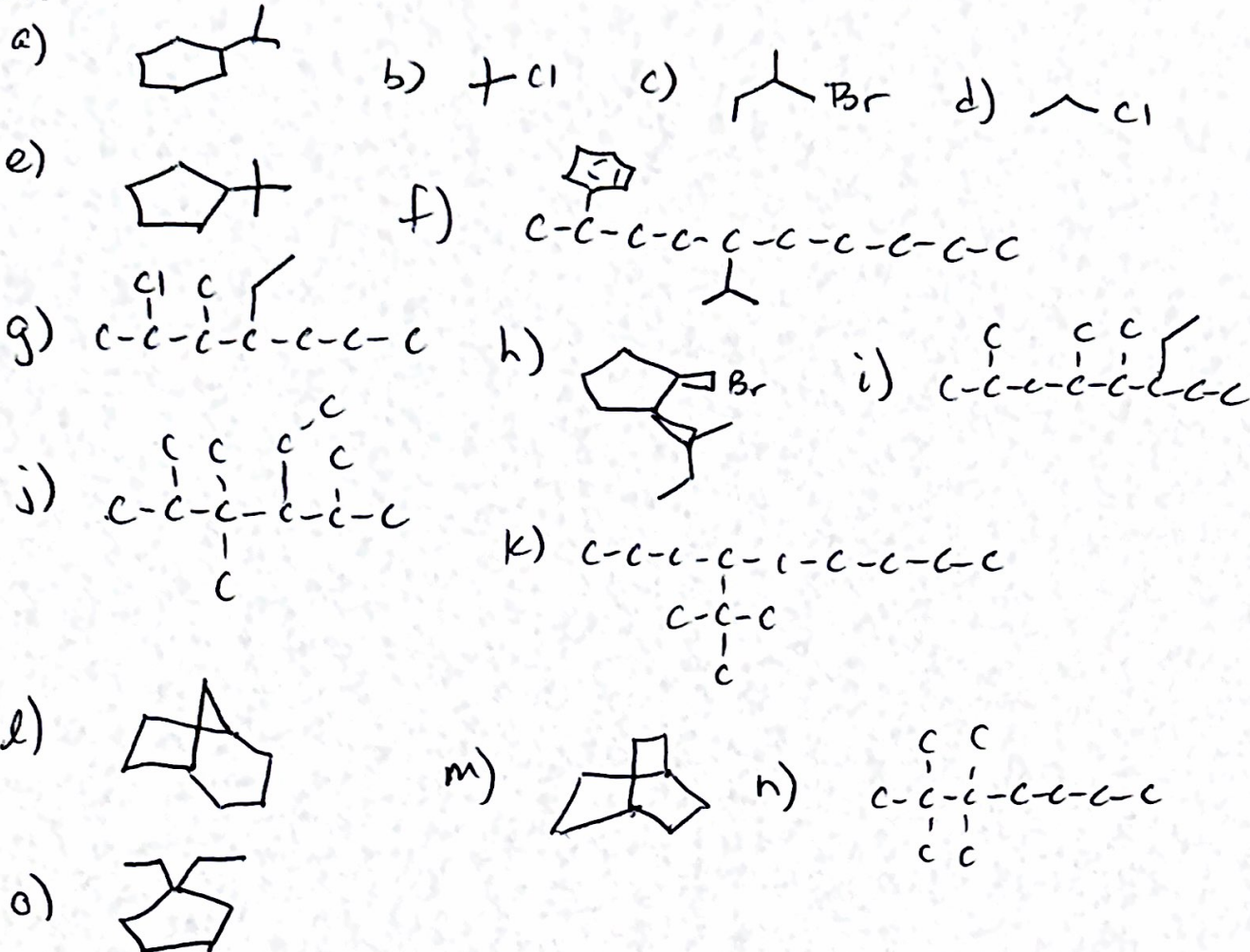


Chapter 6

26.



27. a) 2,4-dimethylpentane

b) 4-methyloctane

c) 5-ethyl-2-methylnonane

d) bicyclo[3.2.1]octane

e) cis-1-ethyl-2-propylcyclopentane

f) bicyclo[2.2.1]heptane

g) 4-isopropylnonane or 4-(1-methylethyl)nonane

h) 3-chloro-4-methylhexane

i) bicyclo[4.2.0]octane

cis- j) 1-cyclopropyl-5-methylcyclodecane

k) 5-ethyl-2-methylnonane

l) hexane

m) 3-ethyl-2,7,8-trimethylnonane

n) trans-1-cyclobutyl-2-methylcyclohexane

o) 2-sec-butyl-1,1,3-trimethylcyclohexane or 2-(1-methylpropyl)-1,1,3-trimethylcyclohexane

p) cis-1,3-dimethylcyclobutane

q) cis-1,2-diethylcyclopropane

r) 5,5-dichloro-3-ethyloctane

s) bicyclo[2.2.2]octane

28. a) $\begin{array}{c} \text{C}-\text{C}-\text{C} \\ | \\ \text{C}-\text{C}-\text{C}-\text{C}-\text{C} \end{array}$ 4-methyl heptane

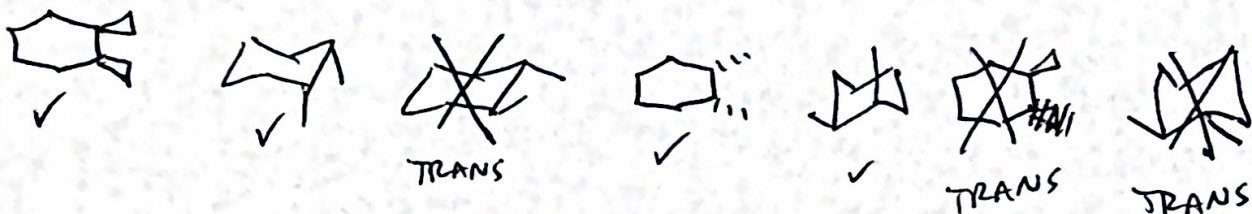
b) $\begin{array}{c} \text{C} \\ | \\ \text{C}-\text{C}-\text{C}-\text{C} \end{array}$ 2-methylbutane

c)  3-ethyl-2-methylpentane

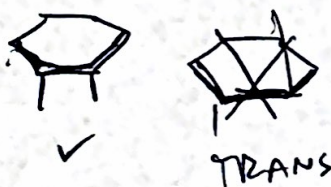
d)  3-ethylhexane

e)  ethylcyclohexane

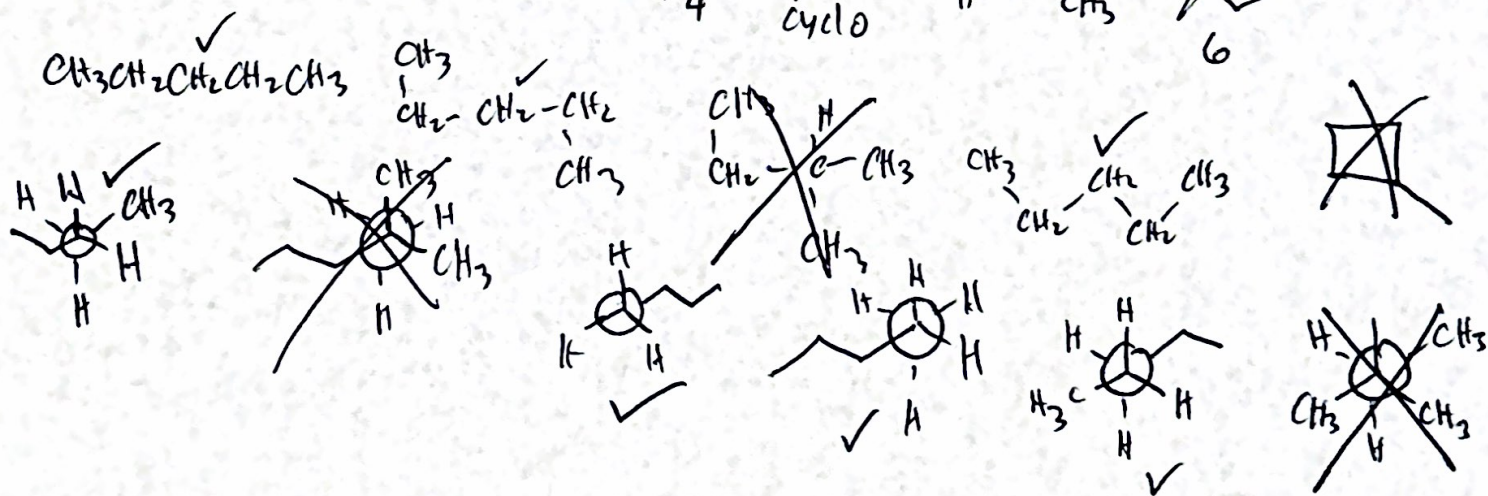
29.

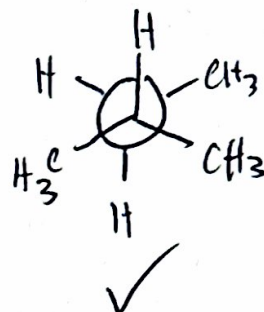
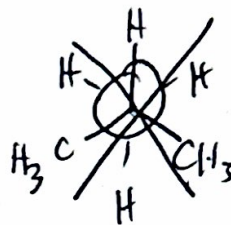
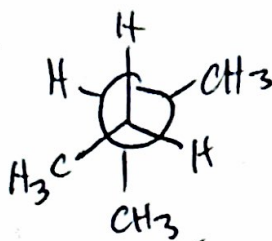
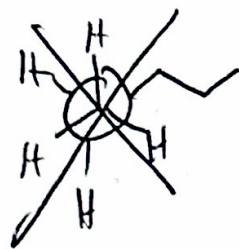
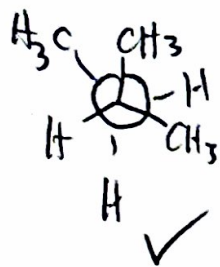
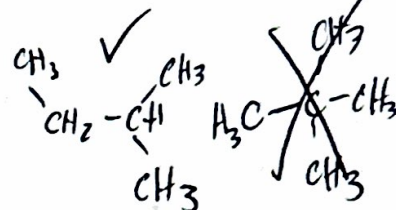
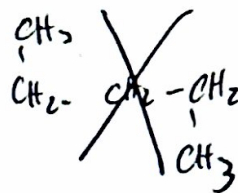
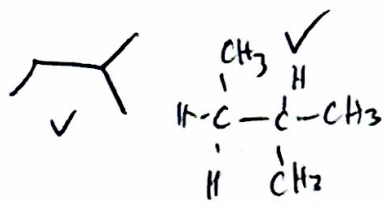
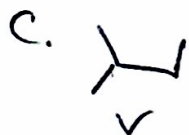


a)

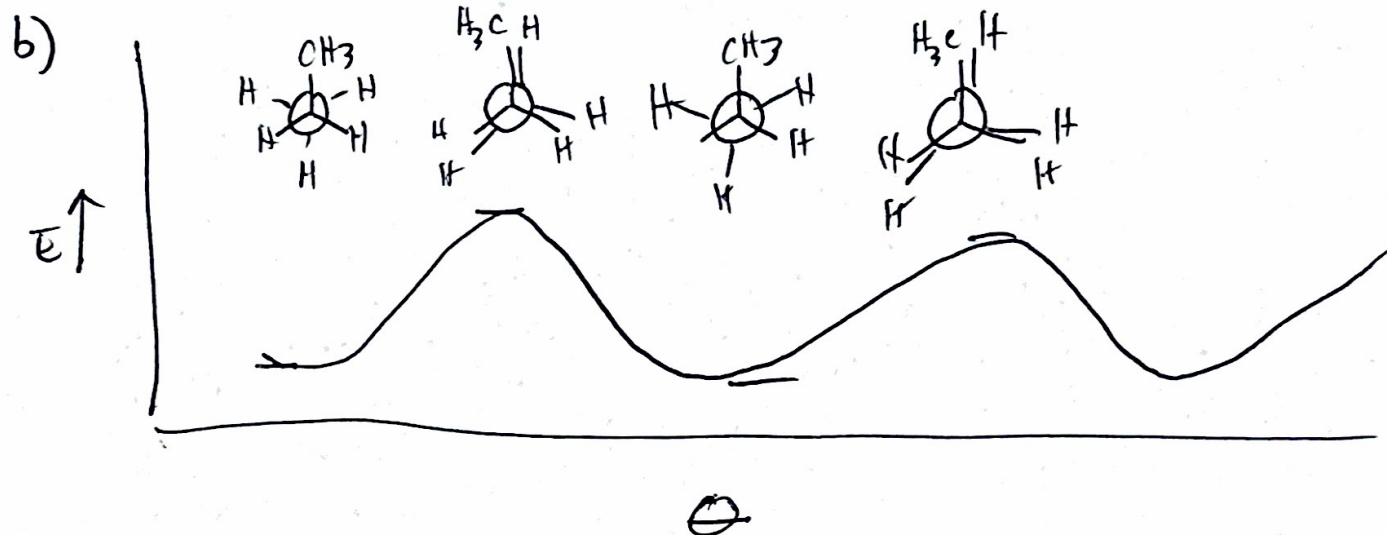
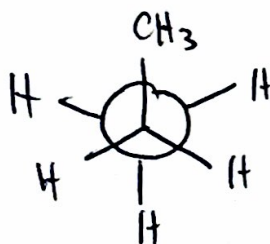


b) 





30. a)



31. a)



b)



c)



d)



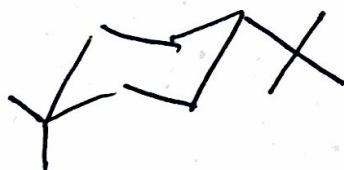
e)



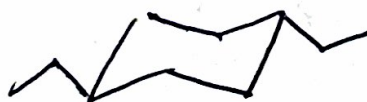
f)

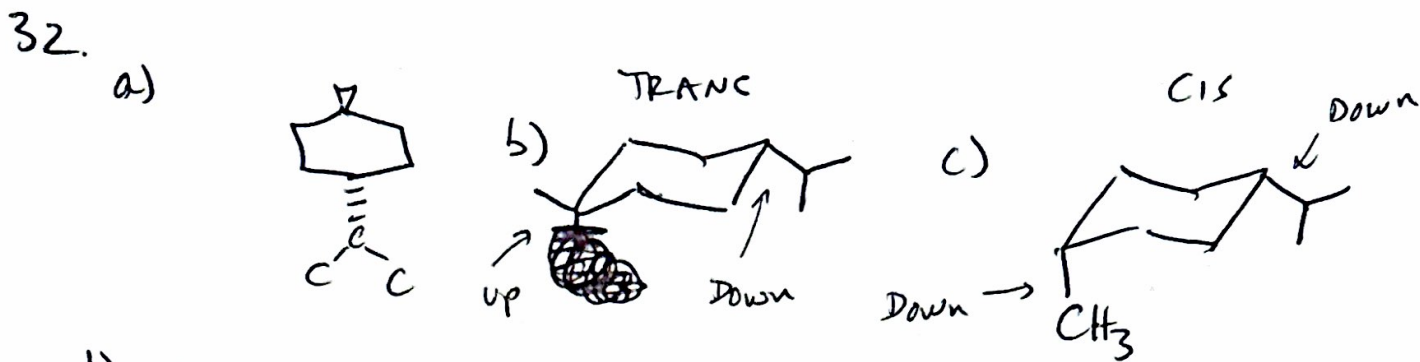


g)

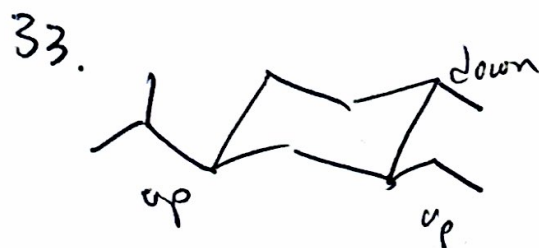


h)



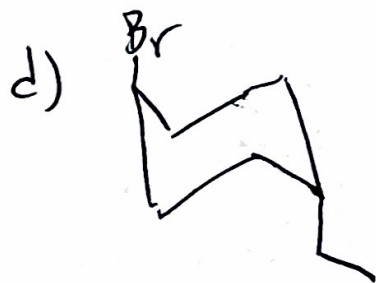
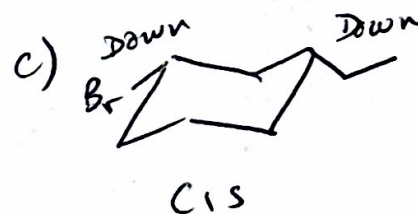
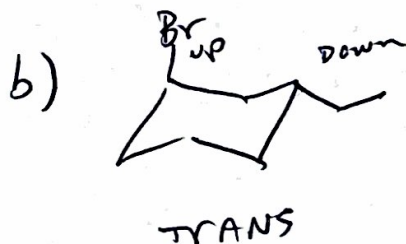
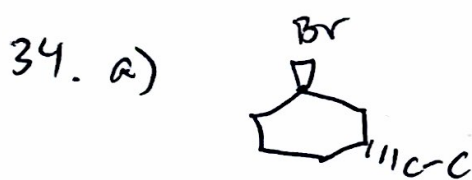


d) trans is lower energy than cis. (both groups Equatorial)



All 3 are EQUATORIAL.

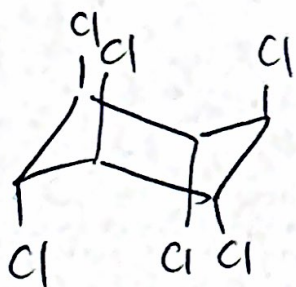
Zero are axial.



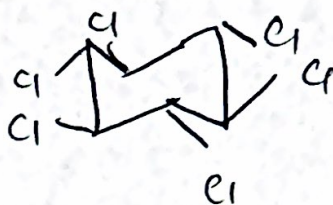
e) cis is lower energy than trans.
all groups are Equatorial in cis.

One Group is AXIAL in trans
which is more crowded & worse.

35. a)



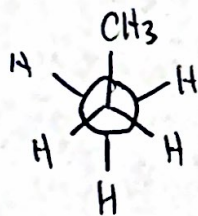
b)



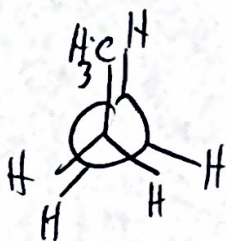
36. a) cis-1,4-dimethylcyclohexane b) trans-1,2-diethylcyclohexane

c) trans-1-bromo-3-chlorocyclohexane d) trans-1-chloro-4-methylcyclohexane

37.



most stable



least stable

38.

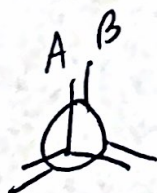
⊙



Gauche

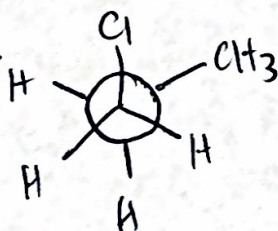


Anti

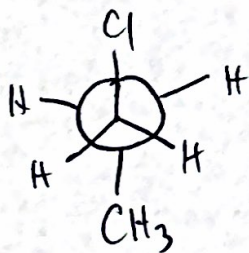


Eclipsed

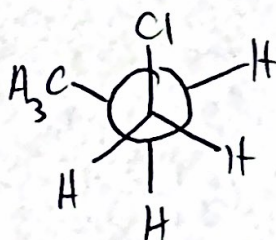
39.



gauche

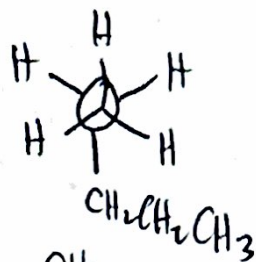


Anti

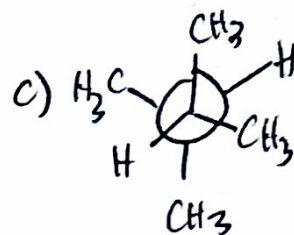
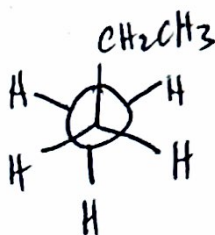


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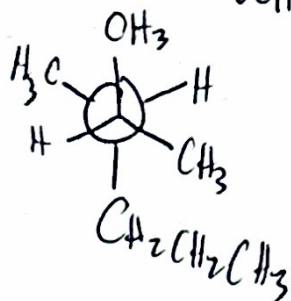
40. a)



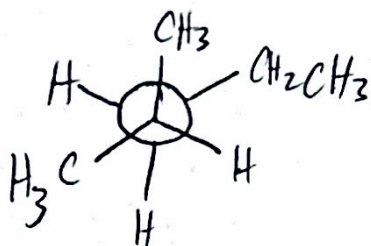
b)



d)



41. a)



b)

