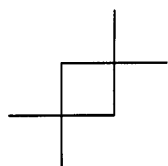
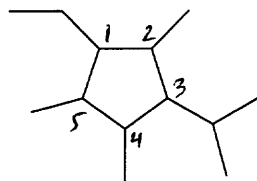


1. (9) Give either the **IUPAC name** or the **correct structure** for each of the following compounds:

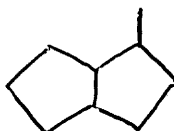


1,1,3,3-tetramethylcyclobutane

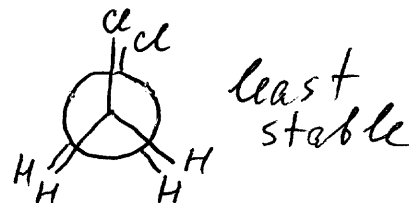
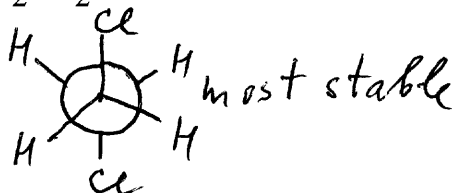


1-ethyl-3-isopropyl-2,4,5-trimethylcyclopentane

2-methylbicyclo[3.3.0]octane



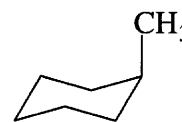
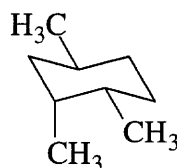
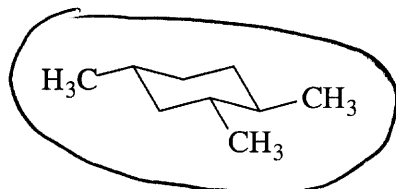
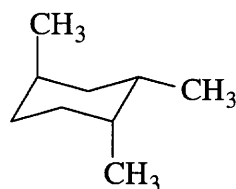
2. (6) Draw **Newman projections** of the *most stable* and the *least stable* conformations of 1,2-dichloroethane, $\text{ClCH}_2\text{CH}_2\text{Cl}$:



3. (5) Make a three dimensional drawing of the **most stable** chair conformation of **chlorocyclohexane**:



4. (3) Circle the conformation that has the lowest **1,3-diaxial interaction**:



5. (2) Circle the compound that has the functional group of a **ketone**:

2-propanone

methanal

propene

cyclopropanol

ethanol

1-hexyne

heptanoic acid