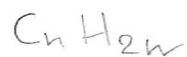


CYCLOALKANES



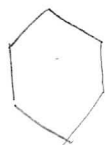
CYCLOPROPANE



CYCLOBUTANE



CYCLOPENTANE



CYCLOHEXANE

NAMING

- FIND THE PARENT

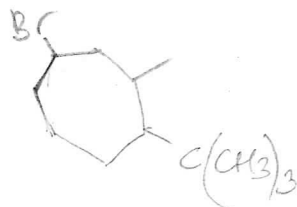
IF $n_C^O > n_C^-$, CALL IT AS A SUBSTITUTED RING.

ELSE, CALL IT A SUBSTITUTED CHAIN.

- NUMBER THE SUBSTITUENTS AND WRITE THE NAME.

- IF TWO OR MORE ALKYL, NAME BY THE ALPHABETICAL PRIORITY

EXAMPLE



Ar

4-BROMO-1-TERTBUTYL-2-METHYL
CYCLOHEPTANE

CIS - TRANS

TRANS-1,2-DIMETHYL-CYCLOPROPANE



CIS-1,2-DIMETHYL-CYCLOPROPANE



STEREISOMERS

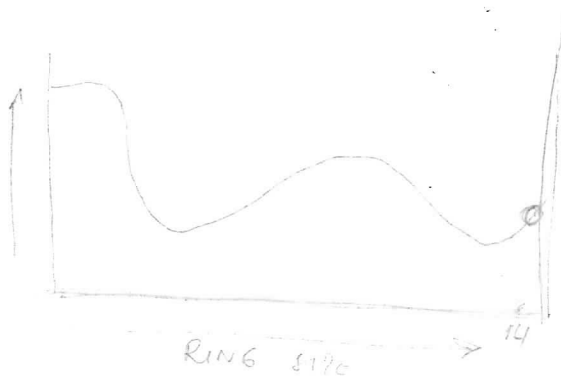
COMPOUNDS IN WHICH THE ATOMS ARE OF THE SAME ORDER BUT DIFFER IN THEIR SPATIAL GEOMETRY.

RING STRAIN

- ANGLE STRAIN
- TORSIONAL STRAIN
- STERIC STRAIN

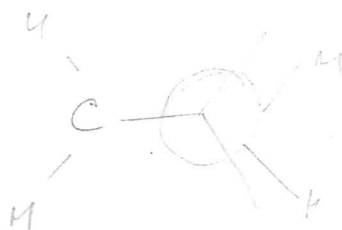
STRAIN ENERGY

- HOW IS STRAIN MEASURED?
COMBUSTION.



CYCLOPROPANE

STRAIN ENERGY: 115 kJ mol^{-1}



MONOSUBSTITUTED CYCLOHEXANES

CAN THE DIFFERENCE IN ENERGY
BETWEEN TWO CONFORMERS BE DERIVED
FROM ALREADY KNOWN QUANTITIES?

EXAMPLE:



AXIAL HINDRANCE
DETERMINES THE
RELATIVE PROPORTIONS
OF CONFORMERS