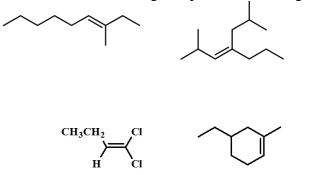
## Alkene Nomenclature and Alkene Structure

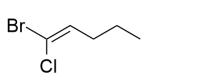
## 1.

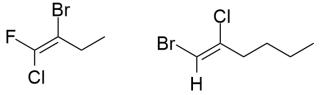
Name each of the following compounds according to IUPAC rules.



- 2. Draw the skeletal structure corresponding to the following names. Make sure to clearly indicate stereochemistry.
  a. (Z)-4-methyl-1,4-octadiene
  b. (E)-5-methyl-1,4-heptadiene
- 3.

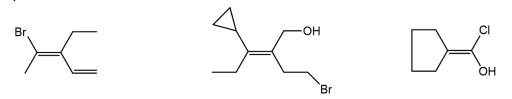
Name each of the following compounds according to IUPAC rules.





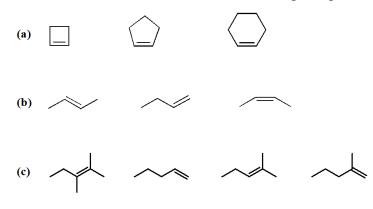
## 4.

Tell whether each molecule is the  $E \mbox{ or } Z$  isomer.



5.

For each group of alkenes shown below rank them in increasing order of stability (most stable = 1). For each series, what is the main principle determining this stability?



6.

Rank the following cycloalkenes in order of increasing stability

