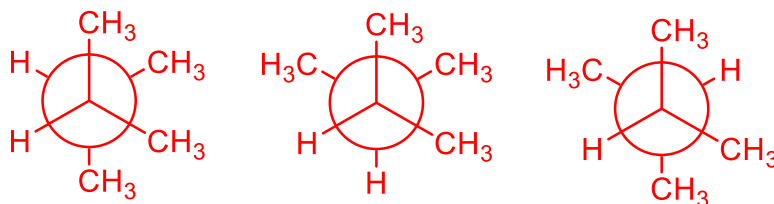


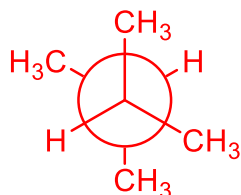
Exercise 6: - Nomenclature and conformational analysis of alkanes

1.

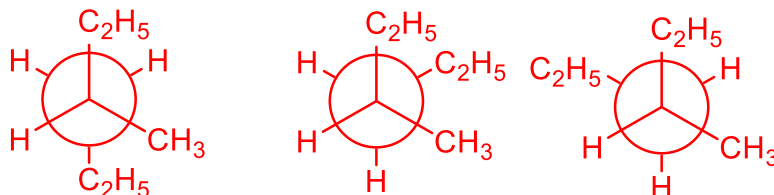
- a. Draw the staggered conformations associated with the rotation about the C2-C3 bond of 2,3-dimethylbutane.



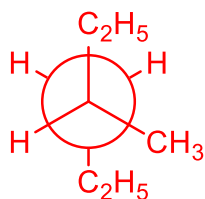
- b. Which is the most stable conformation?



- c. Draw the staggered conformations associated with the rotation about the C3-C4 bond of 3-methylhexane.

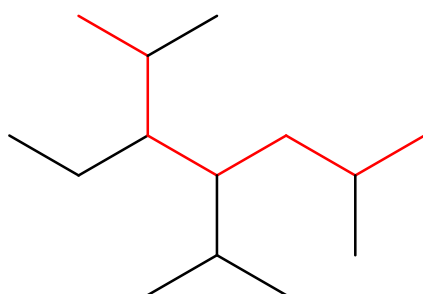
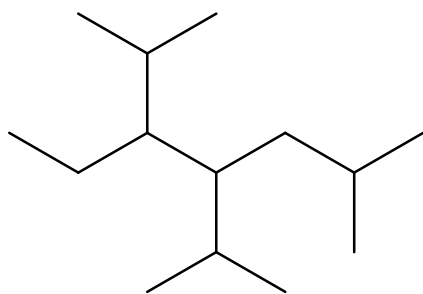


- d. Which is the most stable conformation?

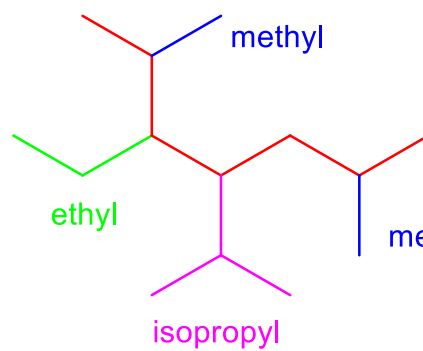


2. Name the following compounds using IUPAC nomenclature.

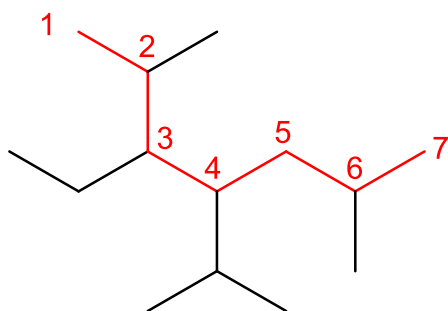
a.



heptane

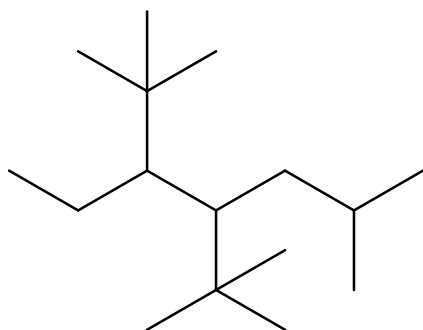


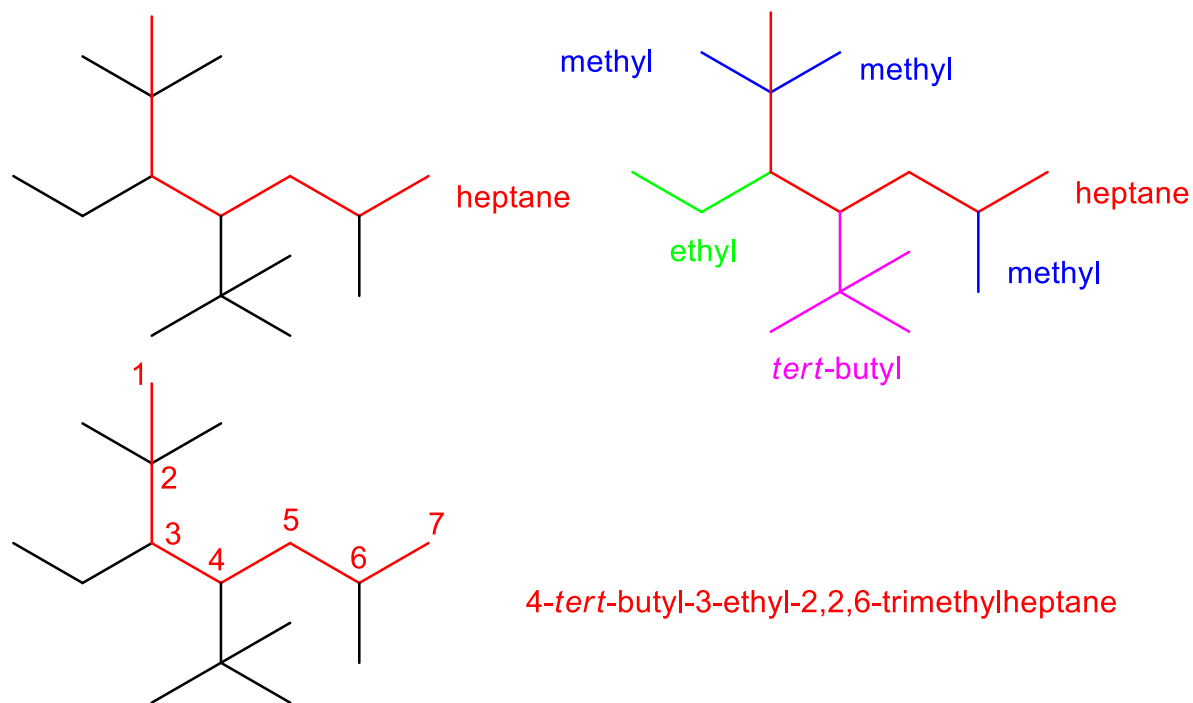
heptane



3-ethyl-4-isopropyl-2,6-dimethylheptane

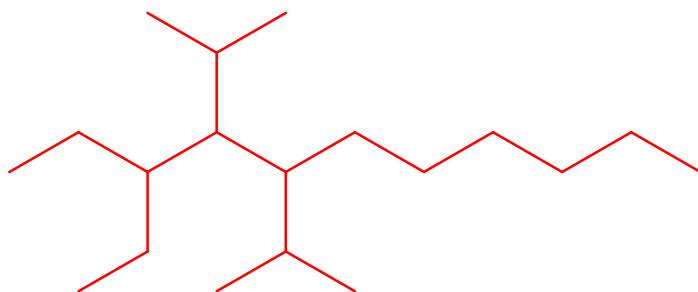
b.





3. Draw the structures of the following compounds :

a. 3-ethyl-4,5-diisopropylundecane



b. 5-(1,2-dimethylpropyl)nonane

