CHEM 131 Nomenclature take home quiz (50 pts). Due, Tuesday Oct 19.

1. Circle all the structures that represent 2,4-dimethylpentane.

   ![Structures for 2,4-dimethylpentane]

2. Draw the condensed and line-bond structure for the following names:

   a. 3-methylpentane  \( \text{CH}_3 \text{CH}_2 \text{CHCH}_2\text{CH}_2 \text{CH}_3 \)

   ![Condensed and line-bond structure for 3-methylpentane]

   b. 2-bromo-3-chlorobutane

   ![Condensed and line-bond structure for 2-bromo-3-chlorobutane]

   c. 3-ethyl-2-methylheptane

   ![Condensed and line-bond structure for 3-ethyl-2-methylheptane]

   d. 1,3-dibromocyclohexane

   ![Condensed and line-bond structure for 1,3-dibromocyclohexane]
Give the IUPAC name for following compounds

1- Chloro - 4-methylhexane
3,3-Dibromo - 5-methylheptane
4-Fluoro-1-butene
1-Bromo nonane
Cyclobutene
1- Iodo - 1,3-diethyl cyclohexane
1,5-diethyl cyclooctene
3-Chloro - 4-ethyl - 3,6-dimethyl nonane
3. Circle the compounds names below that don't make sense & briefly state why

2,4- dimethyl-2-chloro-2-heptene

1-chloro-3-propylhexane

1,3,5 tribromopentane ok.

5,6-dimethyloctane should be 2,3

4. Benzene

1,3,5-cyclohexatriene