

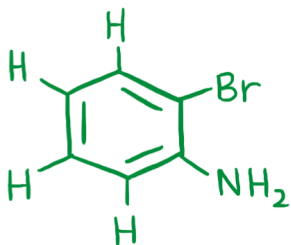
2019 CHEM2C: Assignment 7

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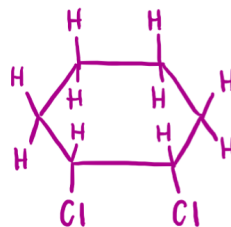
This assignment will not be graded. Please look at the website for solutions. Keep everything brief. Respect significant figures and units.

1. Draw the structures of (a) 3-isobutylhexane; (b) 2,2,4-trimethylpentane; (c) 2-*tert*-butylpentane. Which of these names are incorrect, and give the correct name.
2. Does the compound 1,2,-dichloroethane have isomers? Sketch the structure(s).
3. Sketch the structures of (a) 3-hexene; (b) 2,4-heptadiene; (c) 2-methyl-3-octene; (d) 4-methyl-1-pentyne.
4. Provide structures of: (a) *o*-ethyltoluene; (b) *p*-di-*tert*-butylbenzene; (c) *m*-di-ethylbenzene; (d) 1-phenyl-2-butene.
5. Name all the alcohols that have the formula $C_5H_{12}O$. How many ethers have this formula.
6. Name all the aldehydes and ketons that have the formula $C_5H_{10}O$. How many ketones have this formula.
7. In the presence of light, chlorine can substitute for hydrogens in alkanes. For the following compounds, draw all possible monochlorination products:
(a) 2,2-dimethylpropane; (b) 1,3-dimethylcyclobutane; (c) 2,3-dimethylbutane.
8. Name the compounds below:

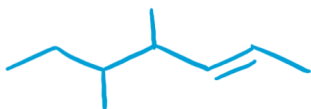
(i)



(ii)



(iii)



What is the formula?

(iv)

