

# Chem 10123, Quiz 9

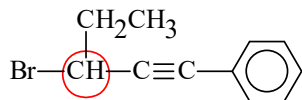
April 15, 2020

## Answer Key

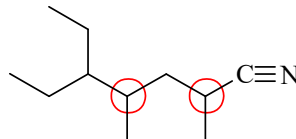
1. Consider the three organic compounds shown below.

(a) (6 points) Write the **systematic name** of each compound below its structure.

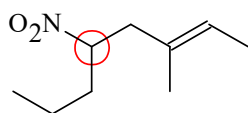
(b) (3 points) Circle any carbon atoms which are **asymmetric (chiral) centers** in these structures.



3-bromo-1-phenyl-1-pentyne

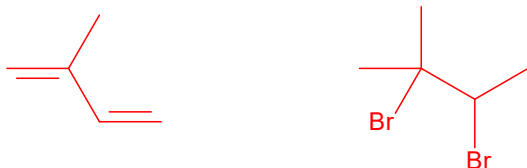
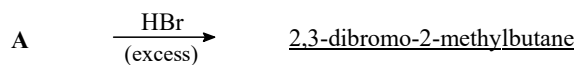


2-cyano-5-ethyl-4-methylheptane



3-methyl-5-nitro-2-octene

2. (5 points) Hydrocarbon **A** reacts with *excess* HBr as follows. Draw complete structural formulas for both reactant **A** and the underlined product.



3 (6 points) Hydrocarbon **B** undergoes **aromatic substitution** with a certain chloroalkane (in the presence of AlCl<sub>3</sub> as a catalyst) to produce the hydrocarbon product **C**. Draw complete structural formulas for reactant **B** and the underlined chloroalkane.

