PRACTICE

(b)

Organic Chemistry Lesson 3: Alkenes and Alkynes

1. Name the following compounds.

- 2. Draw the structure for each of the following compounds.
 - (a) but-2-yne
 - (b) 2,5-dimethylhept-3-ene
 - (c) 3-bromoprop-1-yne
 - (d) cyclohexa-1,3-diene
 - (e) ethene
- 3. Ethyne is better known as acetylene (you should commit the name "acetylene" to memory as this is the preferred name). Acetylene burns at a high temperature and is used in oxy-acetylene welding torches. Write the balanced chemical equation for the complete combustion of acetylene.
- 4. Write the structural equation for each of the following reactions. Include any special conditions. Give major and minor products where appropriate.
 - (a) halogenation of but-2-ene with chlorine
 - (b) hydrohalogenation of hex-3-ene with hydrogen bromide
 - (c) hydration of pent-1-ene
 - (d) hydrogenation of cyclohexene