

## Organic Chemistry 212

Prof J. Walker

Notes: *Chapter Three - Alkenes and Alkynes*

### Alkenes and alkynes are unsaturated hydrocarbons

Draw line angle formulas for:

4-methyl 1-hexene

3-methyl 1-butene

trans-2-butene

2-sec-butyl-1-butene

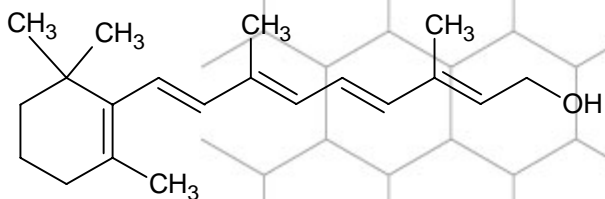
Write formal names for the following compounds whose common names are given:

ethylene

propylene

isobutylene

What is a diene, a triene and a polyene?



Vitamin A (retinol)

How many carbons are in retinol?

Draw an isoprene unit:

What is a terpene?

**The four characteristic reactions of alkenes are:**

hydrochlorination (hydrohalogenation)

hydration

bromination (halogenation)

hydrogenation

**Terminology:**

regioselective

Markovnikov's rule

**Analysis:**

How can bromine be used to determine if an organic compound is saturated or unsaturated?

**Polymers:**

What are some differences between LDPE and HDPE polymers?

**Notes about polymers:**

**Given the monomer - name the polymer:**

ethylene

vinyl chloride

styrene