

NAME:

HONORS CHEMISTRY

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SECTION:

Organic Nomenclature Practice

1. Working from the **back** of the name and moving forward, draw the skeletal structure for the following:

a. 2,2-dimethylbutane

b. 3-ethyl-3-heptene

c. 3-ethyl-2-methyl-1-hexene

d. 2-pentene (add H to C2 and C3 too  
and draw both cis and trans forms)

e. 3,3-dimethyl-1-butyne

f. 4,4-dimethyl-2-pentyne

g. 4,4-dimethyl-2-octanol

h. chlorocyclopentane

i. 1,3-difluoro-2-iodocyclohexane

j. 3,4-dibromo-6-methyl-1-heptyne

k. 3-chlorocyclopentene

l. 2,3-dichlorocyclobutene

2. Each of the following names is **incorrect**. Draw them as written and then give the correct name.

a. 2, 4, 5-trimethylhexane

Correct name: \_\_\_\_\_

b. 2-ethyl-2-propylbutane

Correct name: \_\_\_\_\_

c. 2-ethylhexane

Correct name: \_\_\_\_\_

d. 2-ethyl-4-methyl-3-propylhexane

Correct name: \_\_\_\_\_

e. 3-methyl-2-butene

Correct name: \_\_\_\_\_

f. 3-propanol

Correct name: \_\_\_\_\_

g. 2,2-dimethyl-3-butyne

Correct name: \_\_\_\_\_

h. 5-octyne

Correct name: \_\_\_\_\_

3. Draw carbon backbones for the 3 unique isomers of  $C_5H_{12}$  and then give the names. (1<sup>st</sup>: saturated or unsaturated?)

4. Draw and name the 4 isomers of  $C_4H_8$  (1 saturated ring and 3 unsaturated chains)