**Alcohols- Questions through Dehydration Rxns** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_

**1.** There are two isomers of C3H7OH that are alcohols. One of them is 2-propanol. Draw the other isomer and name it. Also, give the common name of 2-propanol.

**2.** Name the following:

 

**3.** Rank #2 as a primary, secondary or tertiary alcohol.

**4.** Draw the following **and** rank as primary, secondary or tertiary alcohols.

A. 2-methyl-3-pentanol

B. 1, 1-dichloro-3,3-dimethyl-2-hexanol

C. 2, 3, 5-tribromocyclohexanol

D. 2, 3, 5-tribromophenol

E. 2,4,6-trichlorooctan-2-ol

F. 4-methyl-3-pentene-1-ol

G- 5-ethyl-2-heptyne-4-ol

H- 2-isopropyl-2-cyclohexene-(1)-ol

**5.** Give the common name for 1, 2-ethandiol and give an example of a product that contains it.

**6.** There are 2 constitutional isomers for the molecular formula C2H6O:

A. draw the structural formula for the alcohol isomer.

B. draw the structural formula for the other isomer (Hint-different functional group).

**7.** Rank the following from lowest BP to highest BP: octanol, propane, propanol.

**8**. Explain the reasoning for #7.

**9.** Rank the following from most polar to least polar: octanol, propane, propanol.

**10.** Explain the reasoning for #9.

**11.** Draw the condensed formula for 4, 4-dimethylhexanol.

**12. Complete the WS: “Dehydration of Alcohols: Elimination”.**

***(these 4 problems/ reactions are also on another WS, but I’ve also included them below)***

For the following, dehydrate the following alcohols (with acid catalyst). Show the structural (or line) major product and minor product (when applicable). Name the product(s). Also, state if the alcohol is primary, secondary or tertiary. *\*I suggest drawing structural formulas until you get the hang of these.*

1. 2-methyl-1-propanol

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1. 2-pentanol
2. 2-methyl-2-butanol
3. 3-methyl-2-hexanol