9-1-2021

Worksheet 3: Isomers

1) What are isomers?

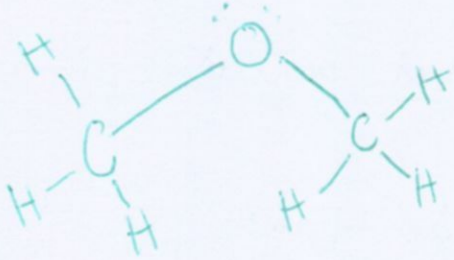
different compounds, with the same molecular formula

2) What are constitutional isomers?

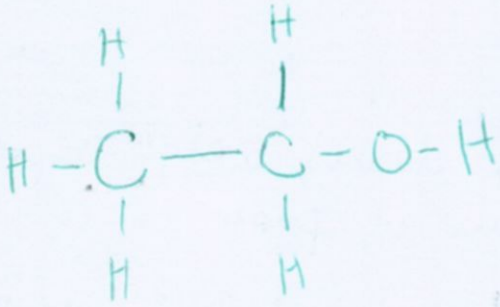
Isomers ~~that~~ have the same molecular formula but different connectivity - atoms connected in a different order.

3) Draw two possible constitutional isomers of C_2H_6O

or



or

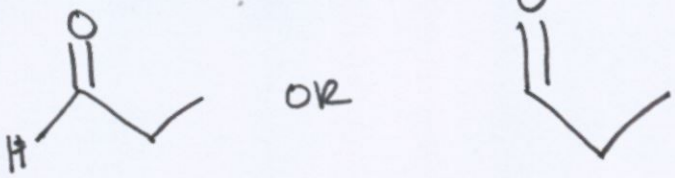


4) Draw the following compounds using bond line (skeletal) structure

a) $CH_2=CHCH_2CH_3$

b) C_4H_{10}

c) $CHOCH_2CH_3$



5) What is the difference between the 3 types of lines when drawing stereochemistry (3D formulas)?

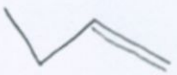
||| dashed wedge represents a bond that projects behind the plane of paper

◀ Solid wedge represents a bond that projects out of the plane of paper

— Ordinary line represents a bond that lies in/on the plane of paper

6) Draw two possible constitutional isomers of C_6H_{10}

7) Draw two possible constitutional isomers of C_4H_8



8) Draw two possible constitutional isomers of $C_5H_{10}O$