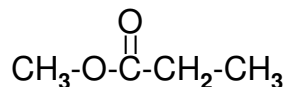


Chapter 23 Review "Functional Groups"

Pre-AP Chemistry
Charles Page High School
Stephen L. Cotton

Chapter 23 Review

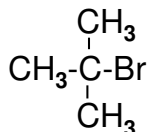
- What is the name of the functional group in the following compound?



- The most important way to classify organic compounds is by _____.

Chapter 23 Review

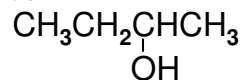
- What is the common name of the following compound?



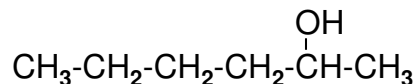
- What is the carbon skeleton of the product formed in the following reaction: $\text{C}_3\text{H}_6 + \text{HBr} \rightarrow$

Chapter 23 Review

- Draw trichloromethane.
- What type of alcohol is shown:



- Phenols are characterized by _____.
- What is the common name of:



Chapter 23 Review

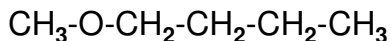
- What is the name given to the following type of alcohol:
 $\text{HOH}_2\text{C-CH}_2\text{-CH}_2\text{-CH}_2\text{OH}$
- What is the relationship between:
 $\text{CH}_3\text{COH(CH}_3)_2$ and $(\text{CH}_3)_3\text{COH}$
- What is true about the boiling point of isopropyl alcohol?
- What alcohol is used in antifreeze?

Chapter 23 Review

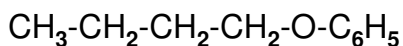
- What substance is added to an organic molecule to test for the degree of saturation?
- In an addition reaction, which bond of the reactant is broken?
- What type of compound is:
 $\text{CH}_3\text{-O-CH}_2\text{-CH}_2\text{-CH}_3$

Chapter 23 Review

- What is the functional group in:



- Name the following compound:

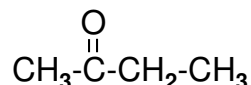


- Name the following compound:



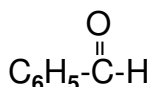
Chapter 23 Review

- Which of the following would be most soluble in water:
a) $\text{CH}_3\text{CH}_2\text{Cl}$, or b) $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$
- What is the carbon skeleton of an ether going to look like?
- What type of compound is:

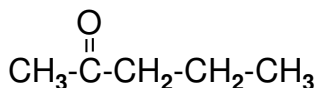


Chapter 23 Review

- Name the following compound:



- Name the following compound:

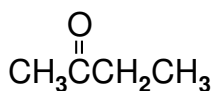


Chapter 23 Review

- What does the carbon skeleton of an aldehyde look like?
- What does the carbon skeleton of a ketone look like?
- Give the general formula for an aldehyde.
- Give the general formula for a ketone.

Chapter 23 Review

- Name the following compound:



- What does the carbon skeleton of a carboxyl group look like?
- What does the carbon skeleton of a carboxylic acid look like?

Chapter 23 Review

- Draw acetic acid.
- Which of the following compounds is most soluble in water:
a) propane, or b) propanoic acid?
- The IUPAC name for a carboxylic acid with two carbons in a straight chain would be _____.
- Esters contribute what property to fruits?

Chapter 23 Review

- What does the carbon skeleton of an ester look like?
- When an oxygen atom is attached to a carbon atom, the carbon atom becomes more _____.
- What is the test for aldehydes?
- If a primary alcohol is oxidized, the type of molecule it becomes is called a(n) _____.

Chapter 23 Review

- Which of the following compounds is most reduced: a) ethane, or b) ethene?
- Which of the following compounds will produce the least energy when completely oxidized: a) hexanoic acid, or b) hexane?
- What is the expected product when 1-propanol is oxidized?

Chapter 23 Review

- The monomer used as the building block in polyethylene is _____.
- What type of chemical bond links the monomers in a polymer?
- What happens in a condensation reaction?

End of Chapter 23 Review