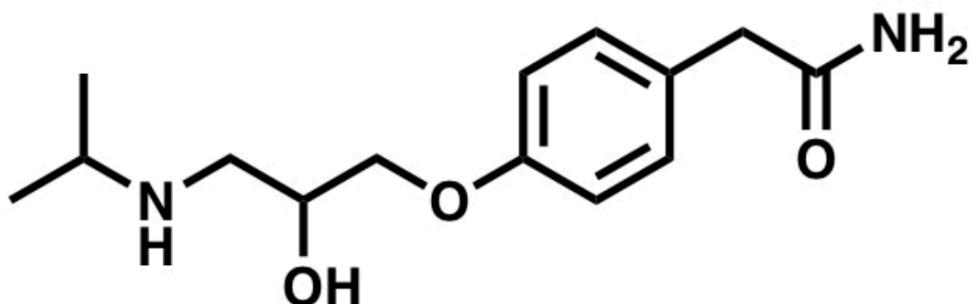


Session 3 Worksheet

Warm-up: Identifying functional groups



Alkyl Functional Groups

Methyl		Ethyl	
Propyl		Butyl	
Isopropyl		Phenyl	

Benzyl		Tert-butyl	
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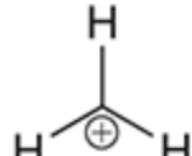
Functional groups study sheet

Alkyl Halide			Nitrile		
Alkane			Ketone		
Alkene			Aldehyde		
Alkyne			Carboxylic Acid		
Alcohol			Ether		
Aromatic/ Arene/ Benzene			Ester		
Amine			Amide		

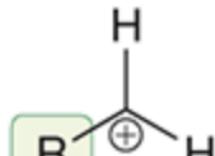
Degree of Substitution

Primary, Secondary, and Tertiary are used to describe the _____ on a carbon of interest (the carbon we're looking at)

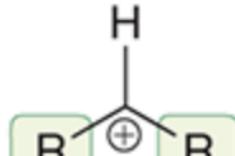
It looks at the number of _____ bonded to that specific carbon



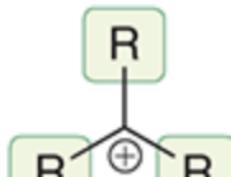
Methyl



Primary

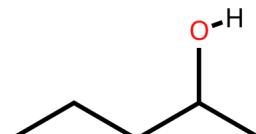
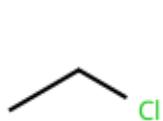
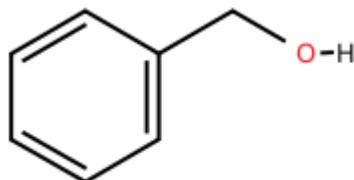
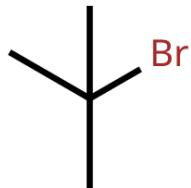


Secondary



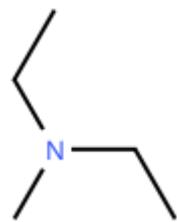
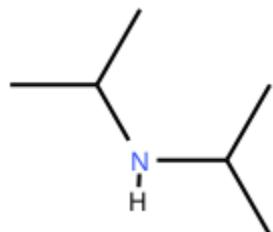
Tertiary

Are the following carbons of interest in the compounds primary, secondary, or tertiary?



Amines

Look at the number of _____ bonded to the actual _____



What is the geometry and bond angle of amines?

Polar Covalent Bonds:

Dipole Moment:

Expressed in _____

Net Dipole:

Label the partial charges and draw the dipole moment on the compounds below:

