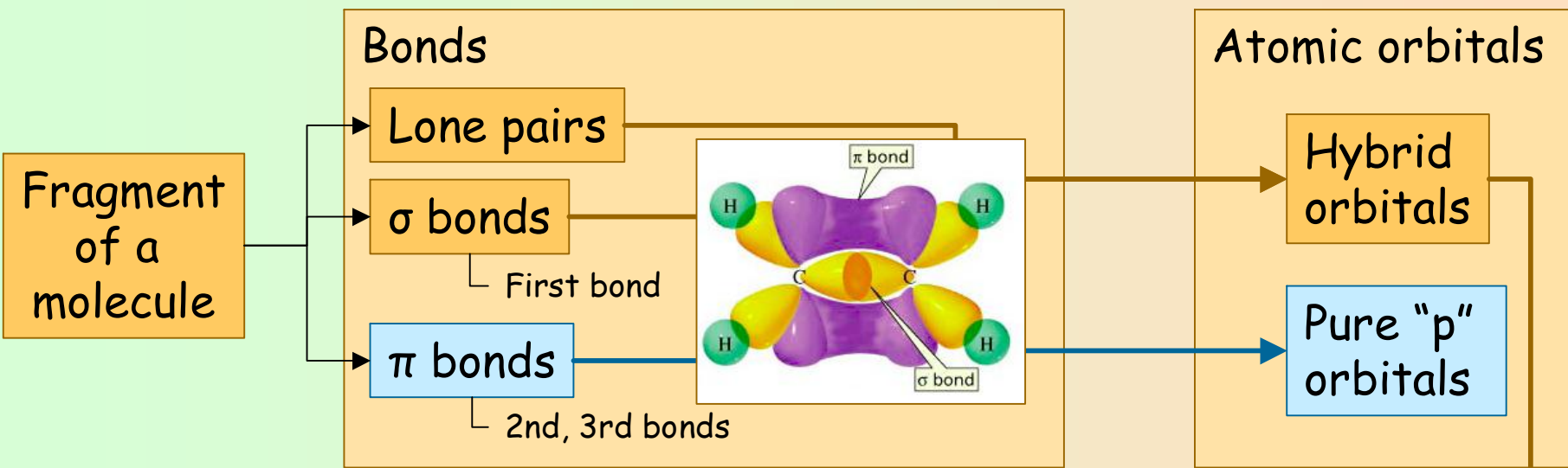


# Hybridization: Determination



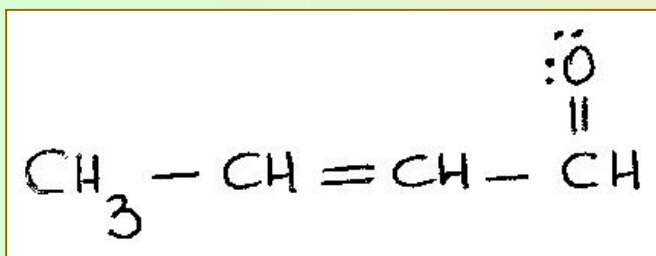
Angles between hybrid orbitals	Atomic orbitals	Number and type of hybrid orbitals	
		Type	#
<p>109.5°</p>	$sp^3$ $sp^3$ $sp^3$ $sp^3$	$sp^3$	4
<p>120° Trigonal planar</p>	$sp^2$ $sp^2$ $sp^2$ $p$	$sp^2$	3
<p>180° Linear</p>	$sp$ $sp$ $p$ $p$	$sp$	2

# Hybridization: Determination

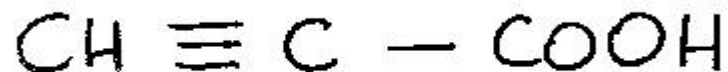
## Exercises

Determine the hybridization of each atom and specify the shape of the molecules.

molecule #1

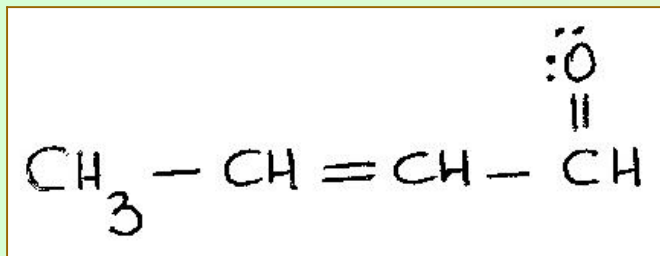


molecule #2

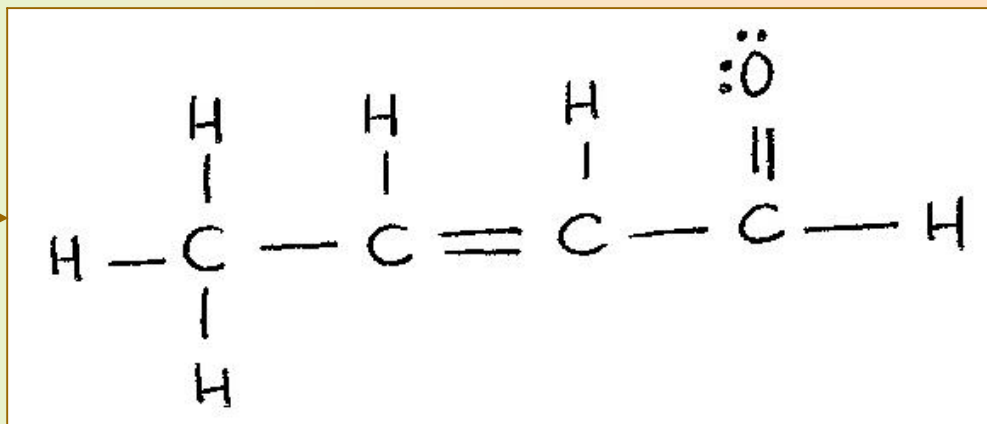


# Hybridization: Determination

## Molecule #1

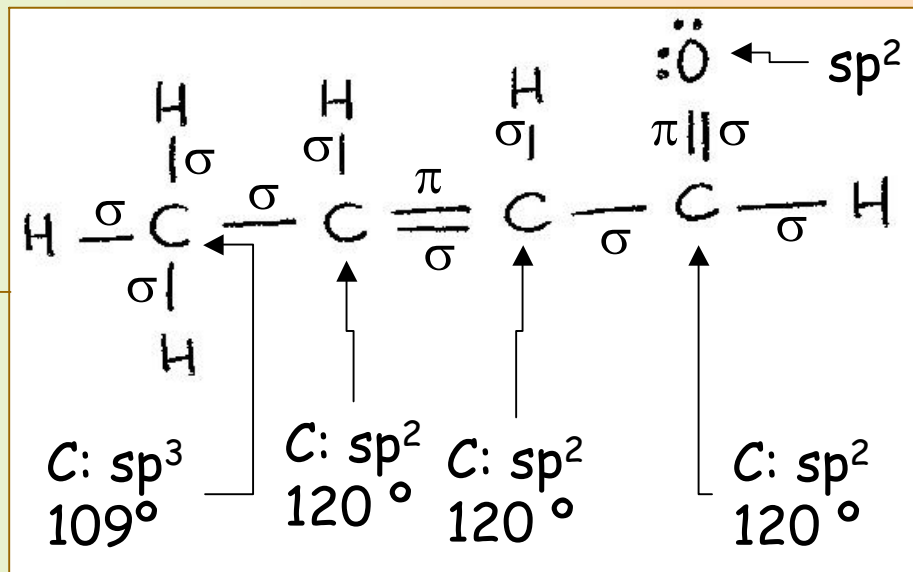
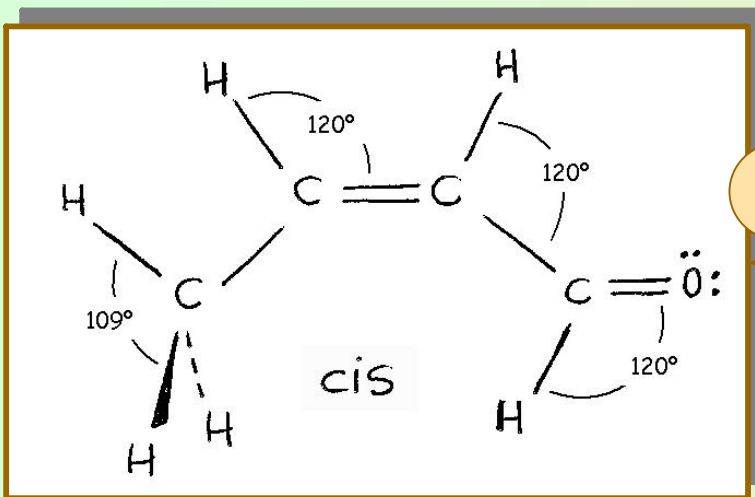


First we draw all the bonds in the molecule.



Finally, the shape is determined.

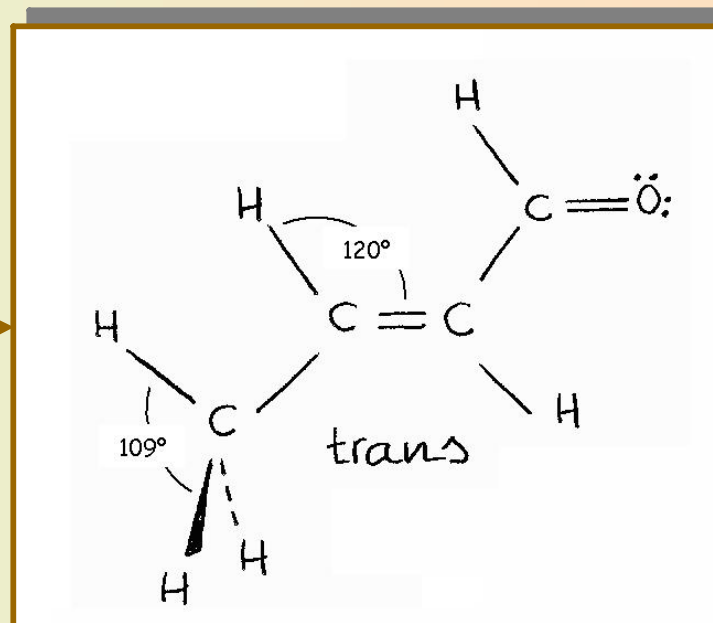
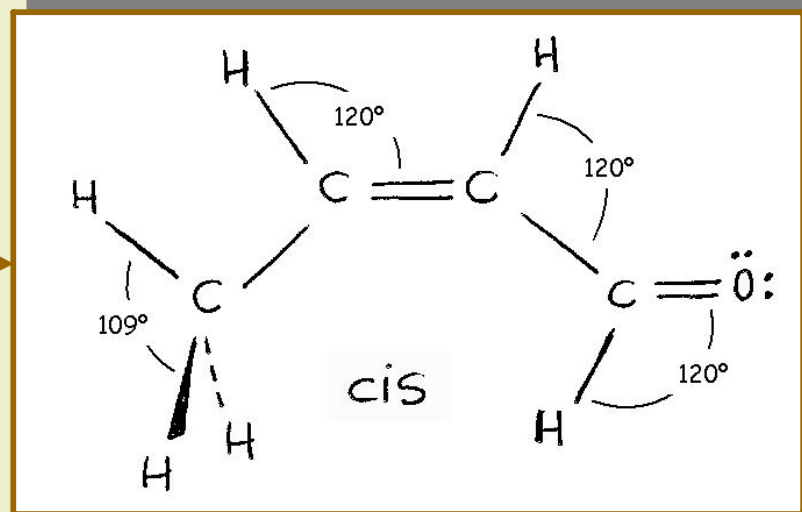
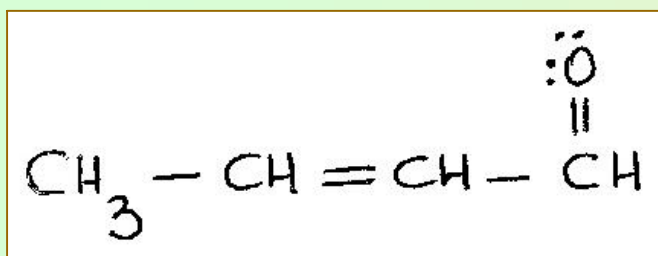
Then, we assign the types of bonds and determine the type of hybridization needed.



# Hybridization: Determination

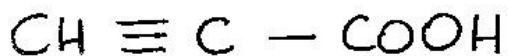
## Molecule #1

This molecules has two isomeres



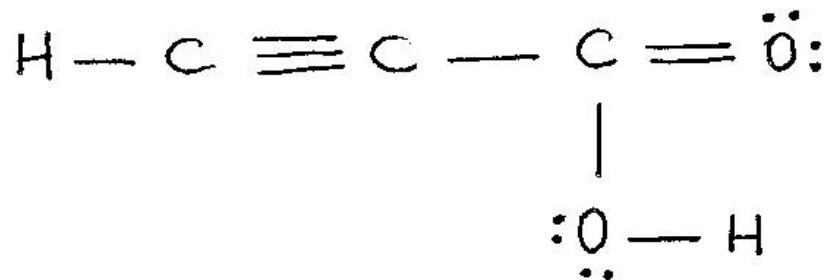
# Hybridization: Determination

## Molecule #2



1

First we draw all the bonds in the molecule.



Then, we assign the types of bonds and determine the type of hybridization needed.

2

Finally, the shape is determined.

3

