two carbon atoms. Alkenes contain at least one double bond and alkanes do not contain double bonds. The length of the carbon-carbon single bond is 154 picometers which is 1. 54 angstroms. A triple bond is stronger than a sigma bond or a pi bond but triple bonds are stronger than single bonds. Bond order is the bond order for a single bond a double bond and a triple bond. hybridization is the hybridization of the atoms that are connected to those bonds. How you can determine the number of sigma and pi bonds in an organic compound feel free to pause the video and try. The next topic of discussion is how to calculate the formal charge of an element so we could say that it has a positive formal charge. The formal charge is equal to the valence electrons of the element minus the bonds and dots attached to that element.

The formal charge of an element is going to be the number of valence electrons minus the sum of the bonds and dots around that element. For nitrogen in the ammonium ion nitrogen has five valence. electrons it's in group 5a of the periodic table in this structure it has four bonds no dots so 5 minus four is one so this particular nitrogen atom has a plus one or a one plus formal charge. i 'maintains that a lone pair represents a pair of non-bonding electrons that are only attached to one atom. One lone pair is equal to two nonbonding electron in a bond and one bond equates to two bonding electrons so to count the number of bonding electrons this is going to be 2 4 6 8 so this particular ion has a total of eight bonding electrons. Ch3och3 and ch3 co ch3 are examples of two organic compounds. Ch2 times 3 co2h go ahead and draw the lewis structures for those two molecules. A ketone is different than an aldehyde when the carbonyl group is in the middle of a chain is the ketone.