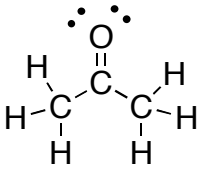
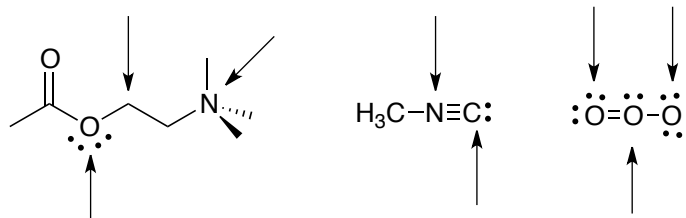


Topic Covered in this problem set: *Molecular Formulas, Lewis Dot Structures, Condensed Formula, Line-angle (AKA-skeleton notation), Hybridization, Constitutional Isomers and Bonding.*

1. Molecules may be represented in many forms. Using each of the forms indicated complete the table below.

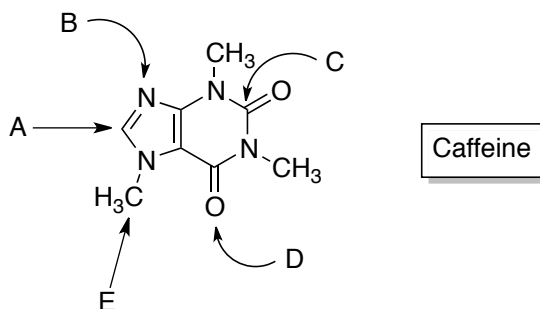
Molecular Formula	Lew Dot Structure	Condensed Formula	Line Angle Drawing
CH ₄ O			
		(CH ₃) ₂ NH	
		(CH ₃) ₂ CCHCH ₃	
			

2. For the atoms with the arrows, assign a formal charge:



Acetylcholine
(neurotransmitter)

4. Fill in the table for the following atoms.



Caffeine

Atom	Hybridization	Geometry	Bond Angle
A			
B			
C			
D			
E			

3. Define and provide an example of each of the following

- a. Ionic bond –

- b. Polar Covalent Bond –

- c. Non-polar Covalent Bond –

- d. Constitutional Isomer –

4. Draw as many isomer forms as you can for the following?

