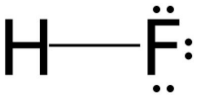


Lewis Structures and Molecules Part B

SEE::	Sec: 2			Sec: 3	Sec: 6		Sec: 7		Sec: 8
	A	B	U	Lewis Structure	Central Atom HON	Central Atom Hybrid Type	Electronic	Shape Molecular	Is there a Molecular Dipole ? (If yes, show by re-drawing Lewis Structure/Arrow)
HF	8	8	0		4 (F)	sp ³ (F)	Tetrahedral	Linear	
H ₂ O					(O)	(O)			
NH ₃					(N)	(N)			
F ₂					(Pick One)	(Pick One)	(Pick One F)		
O ₂					(Pick One)	(Pick One)	(Pick One O)		

Lewis Structures and Molecules Part B

	A	B	U	Lewis Structure	Central Atom HON	Central Atom Hybrid	Shape		Is there a Molecular Dipole? <i>(If yes, show by re-drawing Lewis Structure/Arrow)</i>
							Electronic	Molecular	
N ₂					(Pick One)	(Pick One)			
OH ⁻					(O)	(O)			
CO ₂					(C)	(C)			
HCN					(C)	(C)			
SO ₂					(S)	(S)			

Lewis Structures and Molecules Part B

	A	B	U	Lewis Structure	Central Atom HON	Central Atom Hybrid	Shape		Is there a Molecular Dipole? <i>(If yes, show by re-drawing Lewis Structure/Arrow)</i>
							Electronic	Molecular	
SO_3						(s)			
SO_3^{2-}						(s)			
BrO_3^-						(Br)			
BeF_2									
NO_3^-						(N)			

Lewis Structures and Molecules Part B

	A	B	U	Lewis Structure	Central Atom HON	Central Atom Hybrid	Shape		Is there a Molecular Dipole? <i>(If yes, show by re-drawing Lewis Structure/Arrow)</i>
							Electronic	Molecular	
BBr_3						(B)			
ClO_3^-						(Cl)			
PO_4^{3-}						(P)			
PCl_5						(P)			
BrF_5						(Br)			

Lewis Structures and Molecules Part B

	A	B	U	Lewis Structure	Central Atom HON	Central Atom Hybrid	Shape		Is there a Molecular Dipole? <i>(If yes, show by re-drawing Lewis Structure/Arrow)</i>
							Electronic	Molecular	
TeCl ₄						(Te)			
ClF ₃						(Cl)			
XeF ₂						(Xe)			
ICl ₄ ⁻						(I)			
SF ₆						(S)			

Lewis Structures and Molecules Part B

Please Answer:

1.	What is the number of lone pairs in a water molecule?	
2.	What is the hybridization of nitrogen in the ammonia molecule?	
3.	How many pi bonds are in an oxygen molecule?	
4.	What are the hybrid orbital types on the oxygen in carbon dioxide?	
5.	What are the total number of lone pairs on the sulfur dioxide molecule? (HINT: Consider the Entire Molecule)	
6.	Is the hydrogen cyanide molecule polar?	
7.	What is the formal charge on the sulfur atom in sulfur trioxide?	
8.	Which has more pi bonds: the bromate ion or the nitrate ion?	
9.	What is the hybridization of the nitrogen atom in the nitrate ion?	
10.	How many sigma bonds are in the molecule boron tribromide?	
11.	How many TOTAL lone pairs are in a molecule of xenon difluoride?	
12.	What is the formal charge on the sulfur atom in sulfur hexafluoride?	
13.	What is the formal charge on the chlorine atom in the chlorate ion?	
14.	The tellurium atom in tellurium tetrachloride has how many lone pairs?	

Lewis Structures and Molecules Part B

15.	Is sulfur hexafluoride polar or nonpolar?	
16.	What is the hybridization on the Be atom in BeF_2 ?	
17.	Is carbon dioxide polar?	
18.	Is carbon monoxide polar?	
19.	The hybridization on the iodine atom in the iodine tetrachloride ion is?	
20.	What is the hybridization on the carbon atom in HCN?	
21.	How many valence electrons are on the chlorate ion?	
22.	What is the hybridization of the bromine atom in bromine pentafluoride?	
23.	How many total lone pairs of electrons are on the sulfite ion? (NOTE: SO_3^{2-})	
24.	What is the hybridization of nitrogen in nitrogen gas?	
25.	How many electrons are around the nitrogen atom in nitrogen dioxide? (HINT: Consider both the Shared and Lone)	