

1. Is $\text{Fe}_2(\text{CO}_3)_3$ ionic or molecular? **IONIC** **MOLECULAR**

How many oxygen atoms are in 2.5 moles of this compound?

2. Draw an acceptable Lewis structure for SeO_2 . Explain your process.

3. Draw an acceptable Lewis structure for NO_3^{-1} . Explain your process.

4. Draw an acceptable Lewis structure for AsH_3 . Give the name of shape of the molecule and explain how you figured it out. Draw a picture to represent the three-dimensional shape of the molecule.
5. Draw an acceptable Lewis structure for SO_2 . Give the name of shape of the molecule and explain how you figured it out. Draw a picture to represent the three-dimensional shape of the molecule.

For each of the following, draw the Lewis structure, sketch & name the shape of the molecule & label the bond angles, and identify all intermolecular forces that would be present in a sample of the substance.

	Molecule	Lewis Structure	Sketch of shape & name of shape & label bond angles	Intermolecular forces in pure sample
6.	Cl_2 (chlorine)			
7.	H_2S			
8.	SO_3			
9.	NH_3			

10. The boiling point temperature of H_2Se is higher than that of H_2S , but lower than that of water. Explain these observations.