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| Geometry of the Central Atom  EHS Cλ3MIs+rγ  Mr. Genest | https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcRx7Zxfc1Yw_NxTDqYA2ZCxHJXjTBY0dZexmzCoYtMZsyXEzrBQ | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  This is material for this Friday’s Quiz |

Design the Lewis dot structure for each formula. Follow the rules.

1. *Complete each step with the correct word or words.*

In class we learned that the steps for drawing a Lewis Structure of a molecule are:

* 1. First, you total up the number of valence \_\_\_\_\_\_\_ on all of the atoms of the formula.
  2. Then, when totaling up the e-, assume that each atom is (charged / neutral )
  3. Next, place the element symbols on your drawing first, putting in the middle, any element that there are ( few of / lots of )
  4. Now add electron dots (one at a time / two at a time ) to bond the atoms together
  5. Add any leftover (protons / electrons ) as **lone pairs**
  6. Check that each atom is stable and follows the ( trio / quartet / octet ) rule.
  7. If you ran out of e-, you should erase some lone pairs and turn them into (single / double ) bonds.

1) NF3

2) O2

3)CO

4)PH3

5)SO2

6) BI3

7) NBr3

8) CH4

9)CH3OH (C central)

10) C2H6

11)SiF4

12) CH2Cl2

1)NH3

2) H2S

3)BI3

4) CH4

5) O3

6) CO2

7) H2

8) AsI3

9) HF

10) C2H4

11) CH2O (C central)

12) F2

Now go back and using your reference sheet from class decide what shape the first eight molecules are on this page.

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| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |