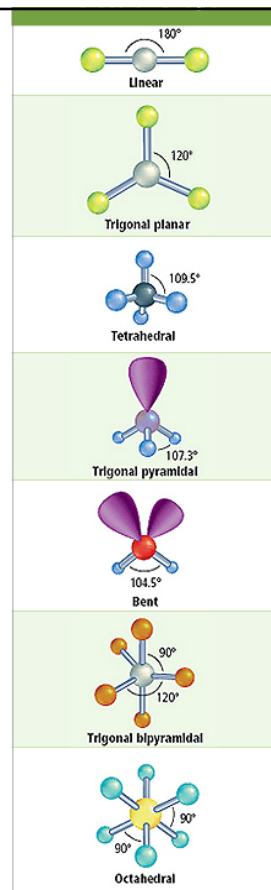


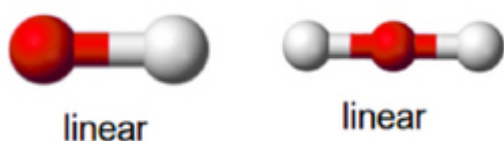
Shapes:

1. linear
2. trigonal planar
3. tetrahedral
4. trigonal pyramidal
5. bent
6. trigonal bipyramidal
7. octahedral



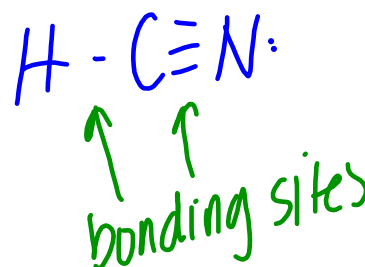
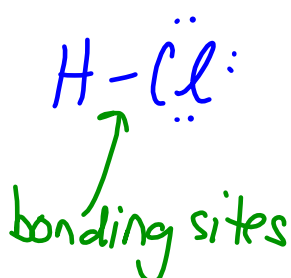
Oct 17-10:00 AM

Linear:



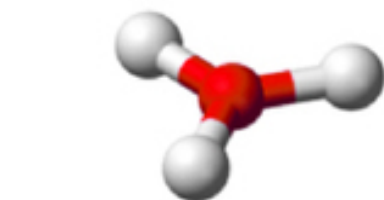
- 1 or 2 bonding sites
- no lone pairs on the central atom

ex: HCl , HCN



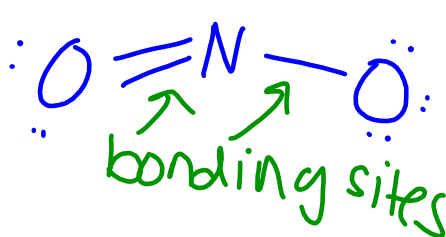
Oct 20-2:44 PM

Trigonal Planar:



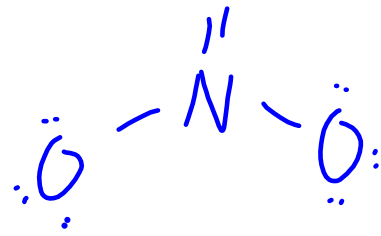
1 lone pair

trigonal planar



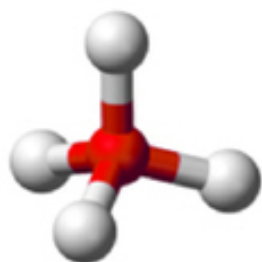
- 3 bonding sites
 - no lone pairs on the central atom
- OR
- 2 bonding sites
 - 1 lone pair

ex: NO_2^- ; NO_2^+



Oct 20-2:44 PM

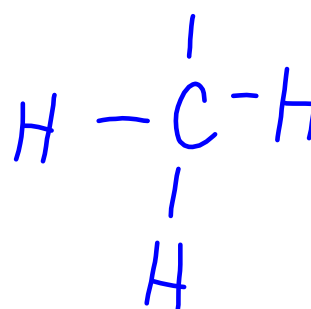
Tetrahedral:



tetrahedral

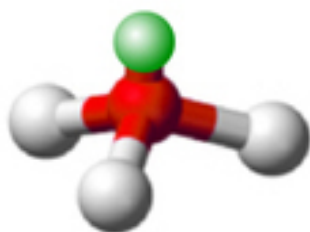
- 4 bonding sites
- no lone pairs on the central atom

ex: CH_4



Oct 20-2:44 PM

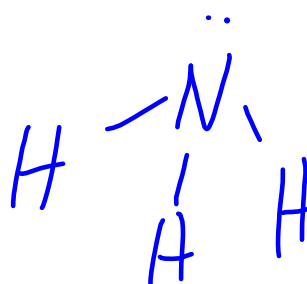
Trigonal Pyramidal:



trigonal
pyramidal

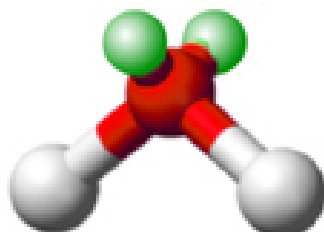
- 3 bonding sites
- 1 lone pair on the central atom

ex: NH_3



Oct 20-2:44 PM

Bent:



bent or
angular

- 2 bonding sites
- 2 lone pairs on the central atom

ex: H_2O

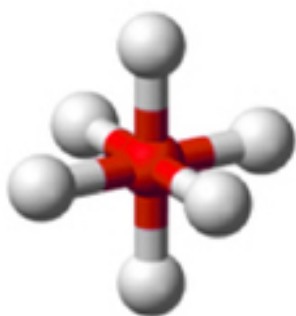


Oct 20-2:44 PM

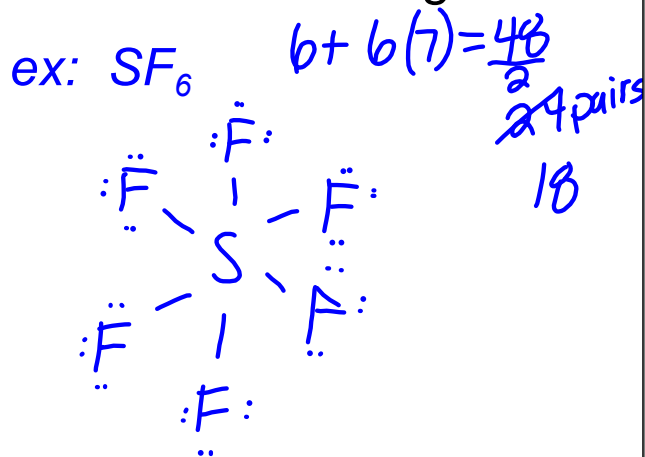
Octahedral:

-- 6 bonding sites / lone pairs

-- lone pairs can be counted as bonding sites



octahedral



Oct 20-2:44 PM

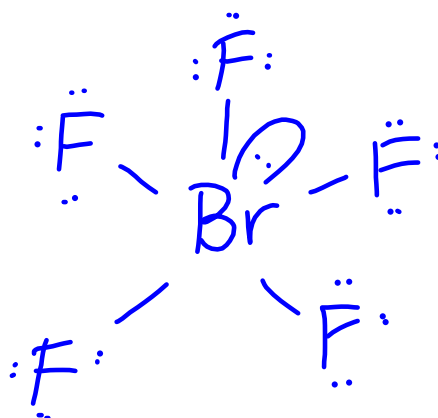


$7 + 5(7) = \frac{42}{2}$

21 pairs

16

1



octahedral

Oct 25-8:47 AM