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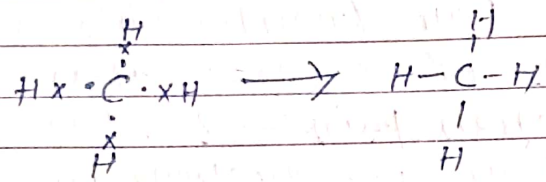
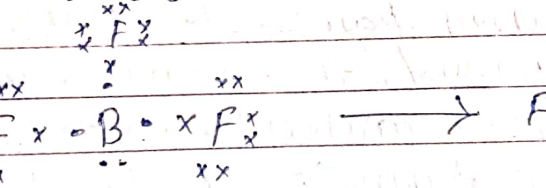
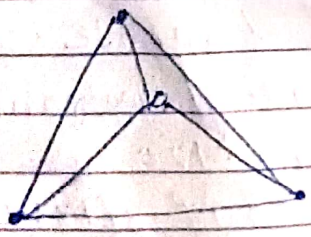
them fasthest apart in to have them towards the 4 corners of a regular tetrahedron. Thus the molecule will be tetrahedral in shape & bond angle will be 109.5° Ex- CH_4. Here Central atom C has electronic configuration $1s^2 2s^2 2p^2$. Outer orbitals having 4 electrons in valency shell. These electrons form 4 equivalent covalent bonds with 4 H-atom.



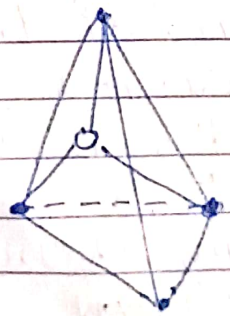
As the 4 bond pairs are equivalent, the mole has a regular tetrahedron geometry with a bond angle. H-C-H as 109.5°.



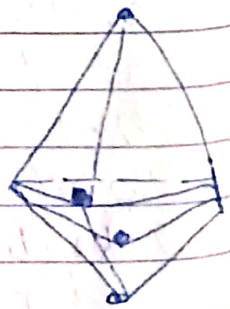
(d) Five bonding electron pair :→ 9f these are 5 bonding electron pairs, the only way to help them farthest apart is to have an arrangement of type, trigonal bipiramidal Ex:- PCl_5, PF_5



(2a)



(2b)



(2c)