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Application of ~~VSEPR~~ VSEPR theory.
— x —   — x —

By applying the above mentioned rules of VSEPR theory, one can deduct the regular geometry as well as the distortion in its regular shape in different molecules:—

(1) **Regular geometry:** — According to this theory, a mole will have regular geometry, if the central atom is surrounded by orbitals containing shared pair of electrons (i.e bonded pair) and these are no orbitals containing lone pair (nonbonding) in a valency shell of central atom.

(a) **Two bonding electron pairs:** — If these are two bonding pair of electrons in a mole, the only way to help them to max^m extent is to arrange then at 180° to each other. It yields a linear mole. with a bond angle 180°. Ex. BeF_2.

(b) **Three bonding electron pair:** — If these are 3 orbitals arround, the central atom in a molecule, the molecule in the case will be planar triangle & the bond angle will be 120°, Ex — BF_3. ~~The~~ Here B$_{(5)}$ having electronic configuration $1s^2 2s^2 2p^1$ or 2,3 i.e it has 3 electrons in its valency shell. 3 valence electrons form 3 covalent bonds with 3F-atoms. The molecules having shape equilateral triangle, lying at the center & the 3 atom, at the corness of the triangle. This shape is known as trigonal bipyramidal. Bond angle of F-B-F is 120°.

(c) **Four bonding electron pair:** — If these are 4 orbitals ~~is~~ around the central atom in a mole, the only way to help.

P. T.