



VSEPR - II

Course on Chemical Bonding for Class XI 2023

$$\frac{1}{3}C - C_H = C_H$$



Question






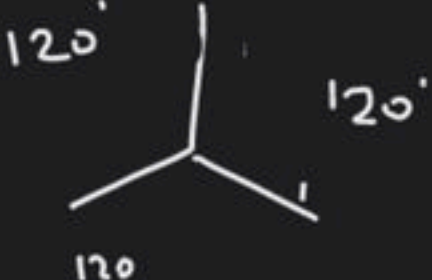




from Harssh

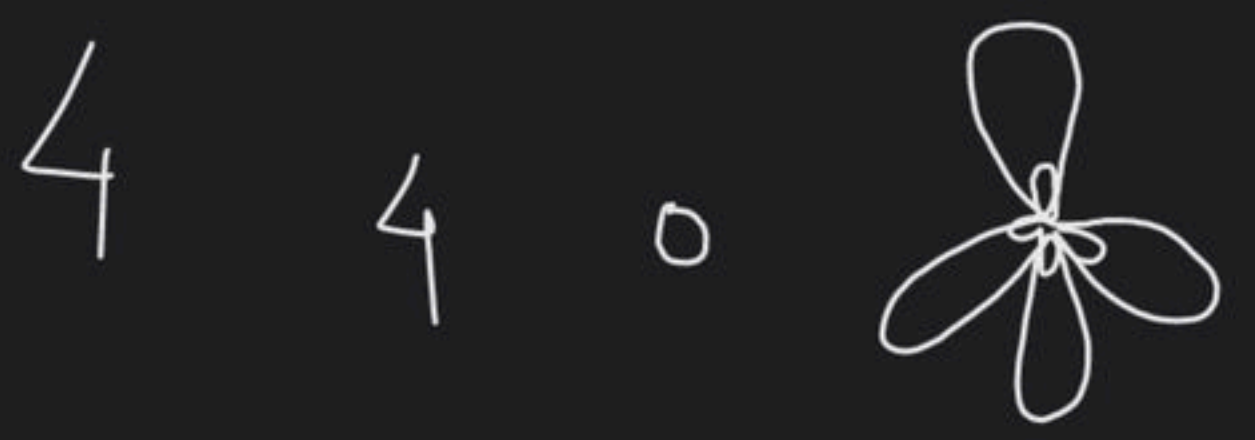
Charansparsh Sir,
Sir main apna hi student hu 2021 Dropper
batch ka. Sir main 2nd drop le rha hu
kyuki mera exam acha nhi hua. Maine
bhut koshish ki jab bhi main exam me
acha nhi kar paya... Sir Maine apni galtiyo
ke analysis karke fir drop le rha hu. mera
course complete hai.. Please guide krjiye
ki 3se 4 months me meri preparation
achi ho jaye...

Main apna pura best dene ke liye
ready hu..



REDMI NOTE 6 PRO
MI DUAL CAMERA

T.H.O	no of σ bonds	no of l.p	electron geometry	Geometry/shape	B.A	e ⁻ example
2	2	0	 linear	 180°	180°	BeCl ₂ , CO ₂
2	1	1	 linear		—	CO [$\text{:C}\equiv\text{O:}$]
3	3	0	Trigonal planar  120°	 120°	120° = 3	BF ₃
3	2	1 (T.P)		 Bent Angular	< 120°	SO ₂
3	1	2 T.P		 vs shape	—	BF ₃ ⁻²

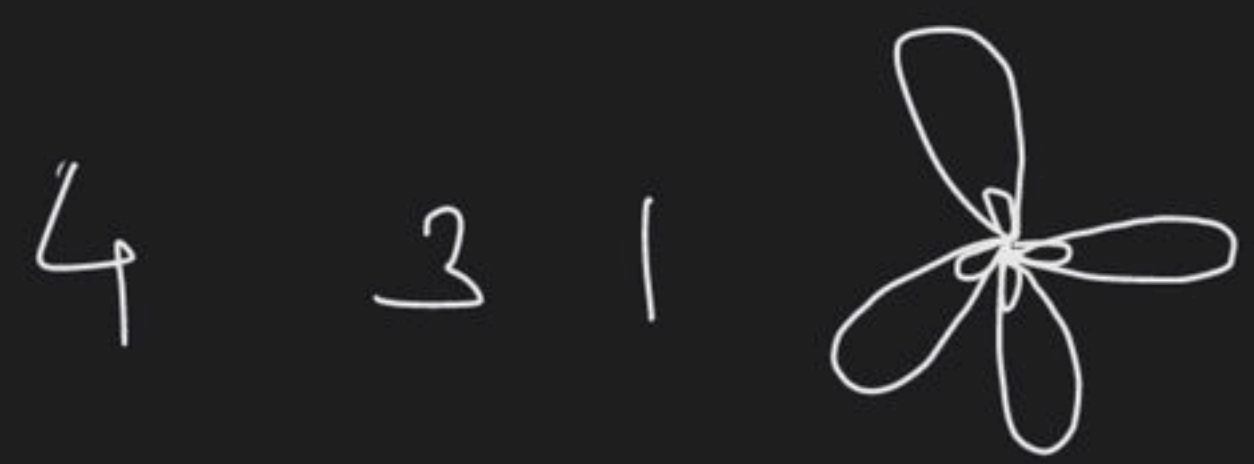
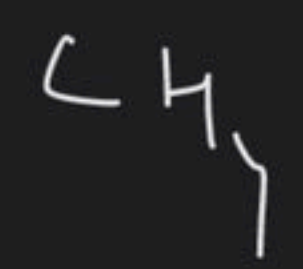


tetrahedral



tet.

$$109.5^\circ = 6$$

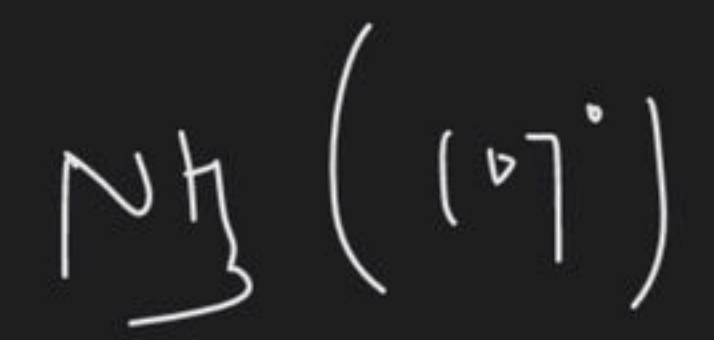


tetrahedral



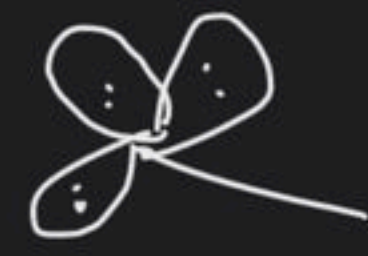
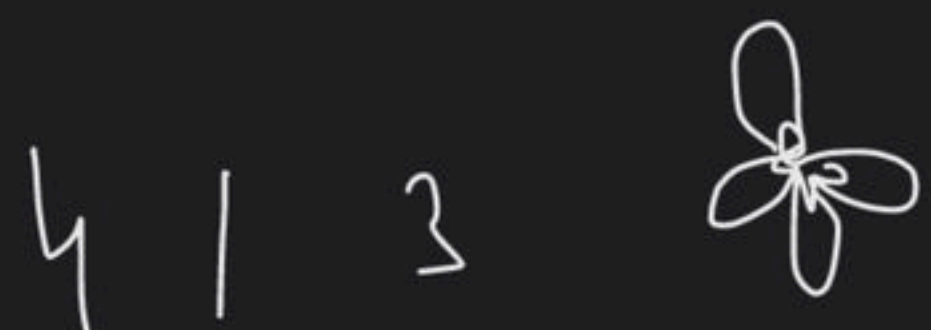
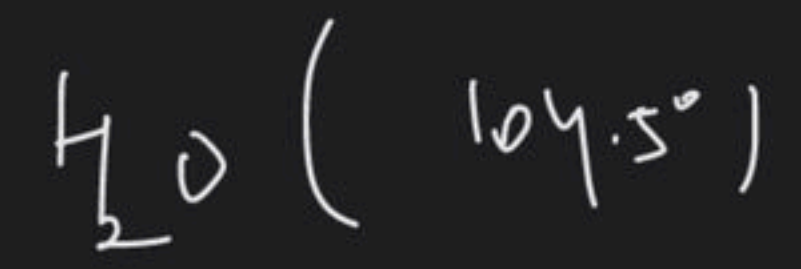
pyramidal

$$\angle 109.5^\circ$$

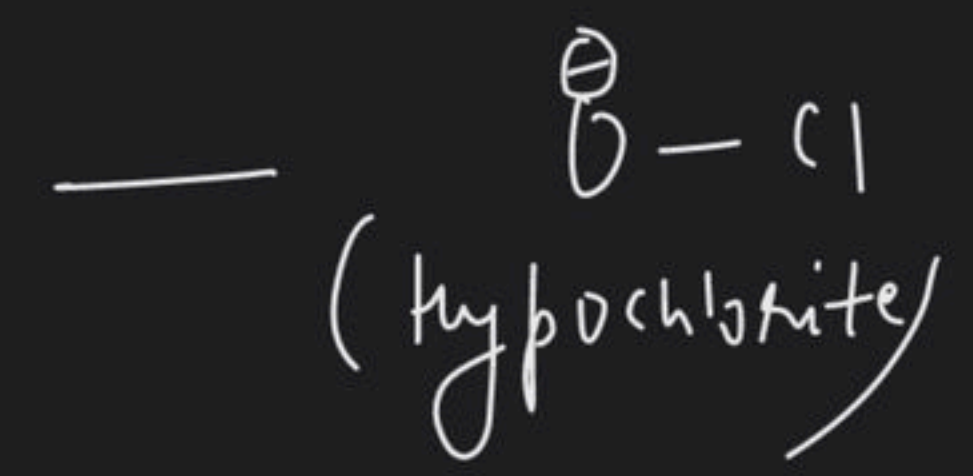


v shape
Angular
Bent

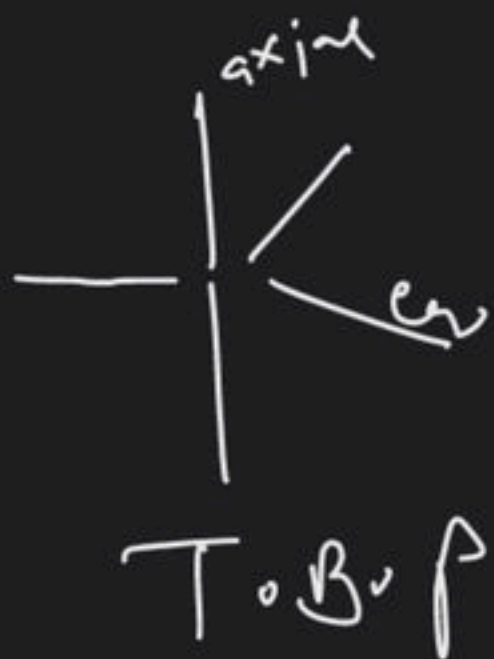
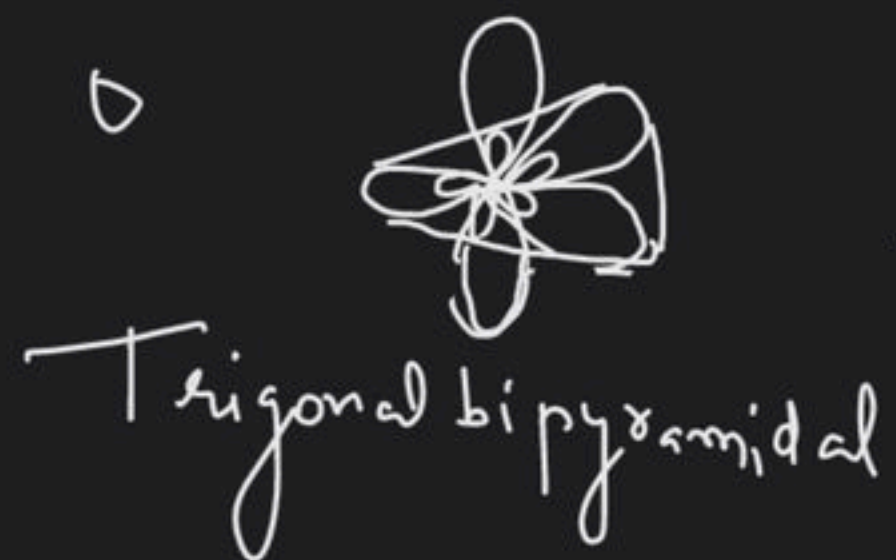
$$\angle < 109.5$$



linear



5 5



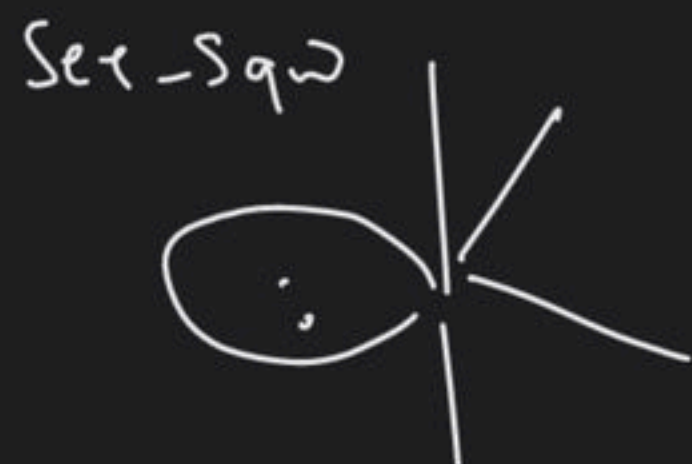
$$\left. \begin{array}{l} 90^\circ = 6 \\ 120^\circ = 3 \end{array} \right\} \begin{array}{l} \text{adj.} \\ \text{angle} \end{array}$$

$$180 = 1$$

PCl_5

5 4 1

T.B.P



$< 90^\circ$
 < 120

SF_4

5 3 2

T.B.P



Bent-T shape

$< 90^\circ$

ClF_3

5 2 3

T.B.P

T.B.P



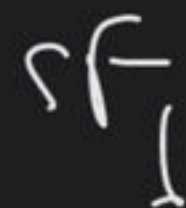
linear

180

XeF_2



$$90^\circ = 12$$



$$180^\circ = 3$$

Octahedral

Square bipyramidal

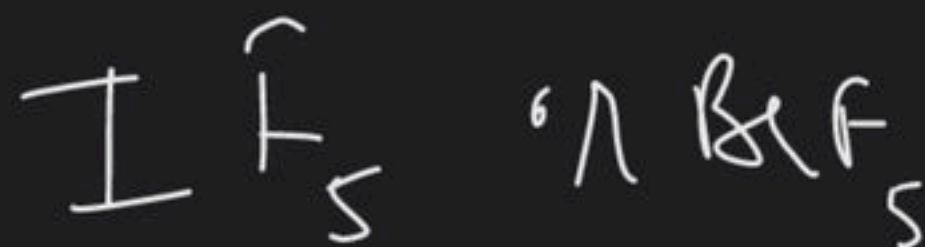


Oct.



$$90^\circ = 0$$

$$\angle 90^\circ = 8$$



Square pyramidal

$xe f_4$



Square planar

$$90^\circ = 4$$

$$90^\circ = 4$$

7 7 0



(P.B.P) Pentagonal bipyramidal



$$\begin{aligned} g_0' &= 10 \\ g_2 &= 5 \\ 180 &= 1 \end{aligned}$$

$I f_7$

7 6 1 P.B.P



Pentagonal pyramidal

7 5 2 P.B.P

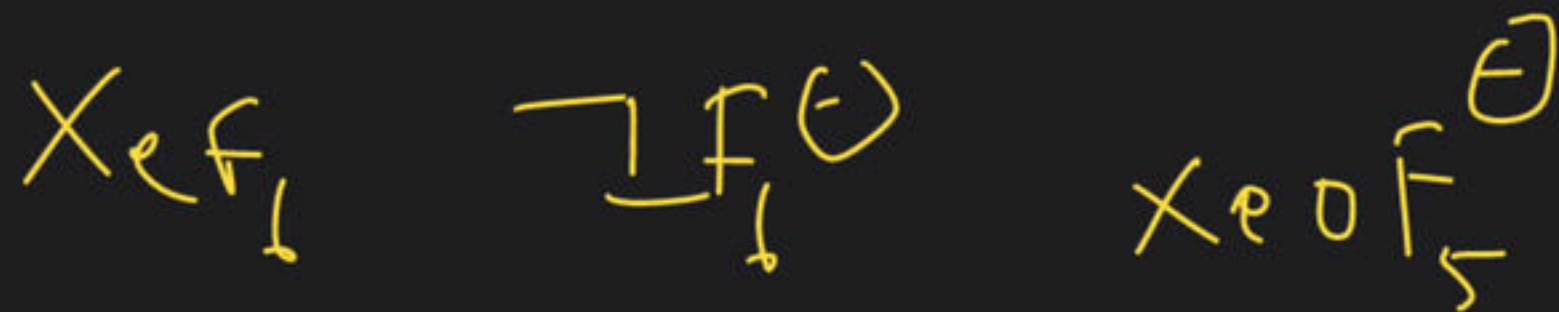


Pentagonal planar

$$\begin{aligned} g_0 &= 0 \\ g_2 &= 5 \\ 180 &= 0 \end{aligned}$$

$X e f_5^{\oplus}$

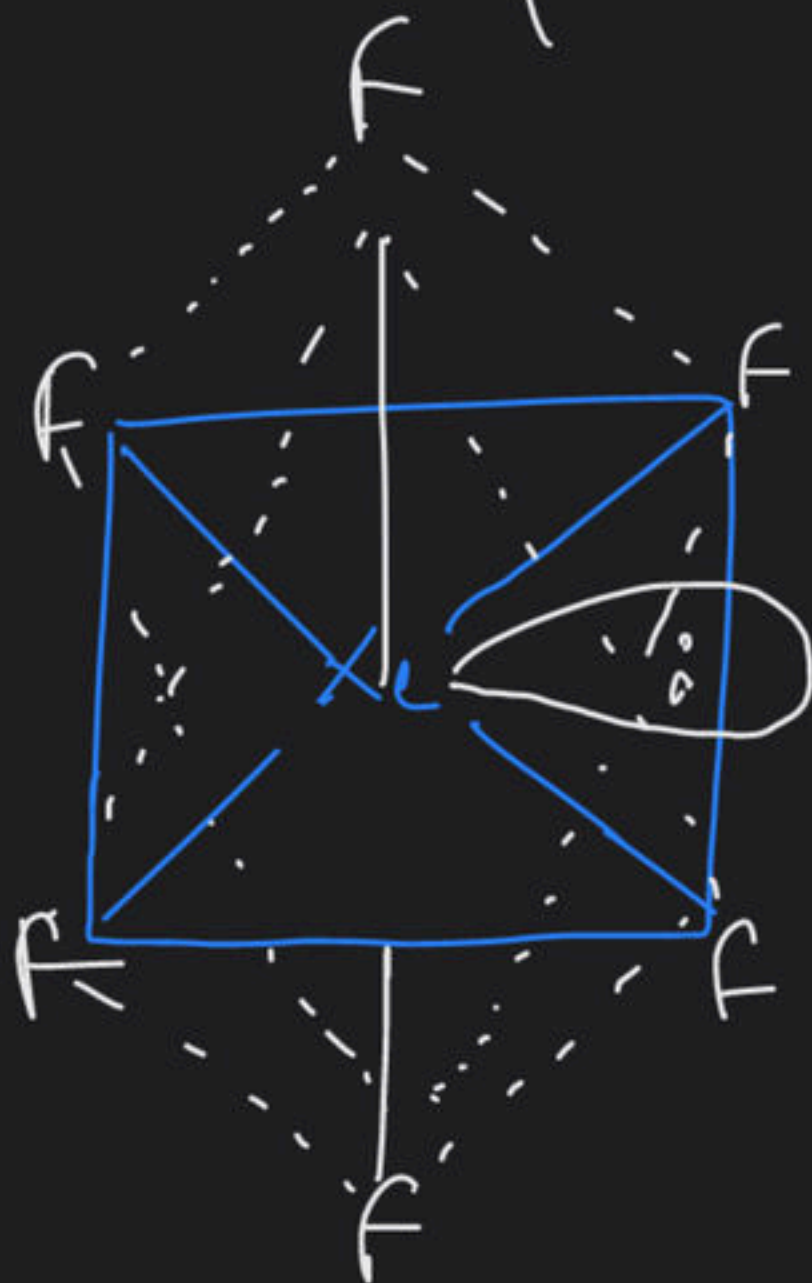
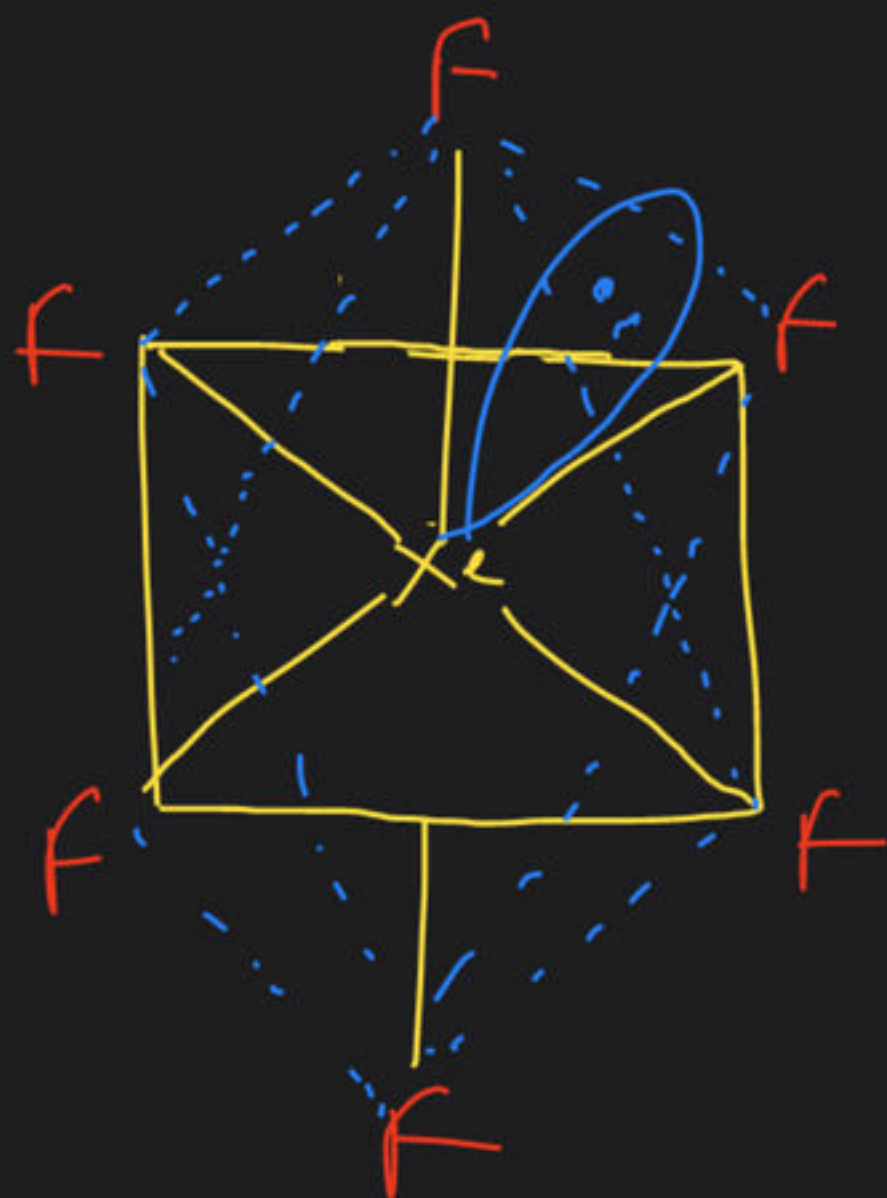
Note



cappped octahedral

or distorted octahedral

Stereochemically
active lone pair

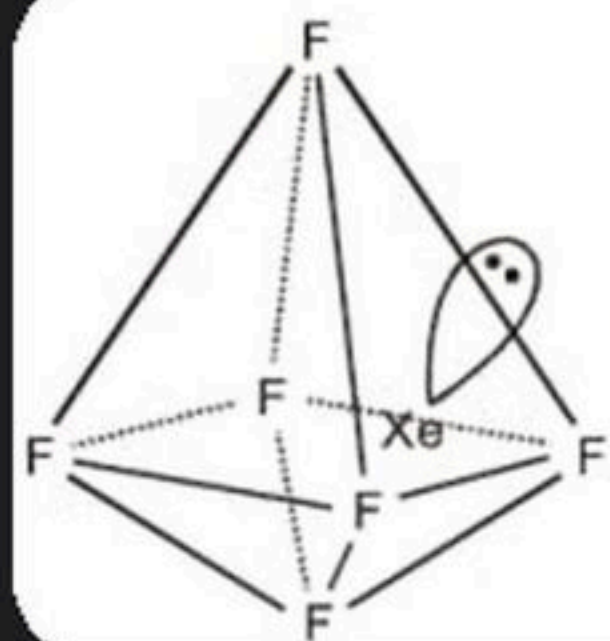




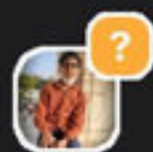
Question

from Raghav

capped octahedral



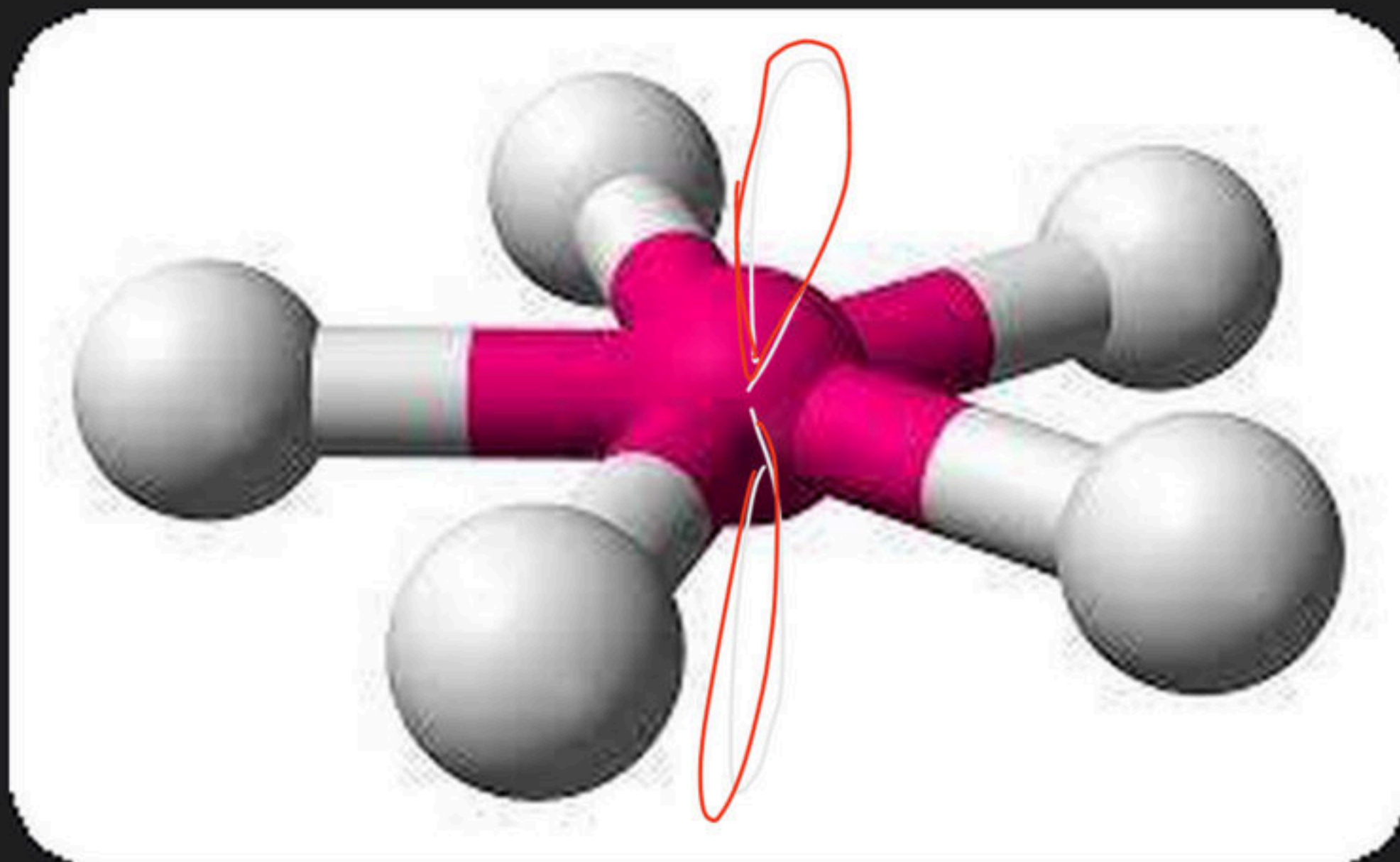
Capped octahedron (or distorted octahedron)



Question

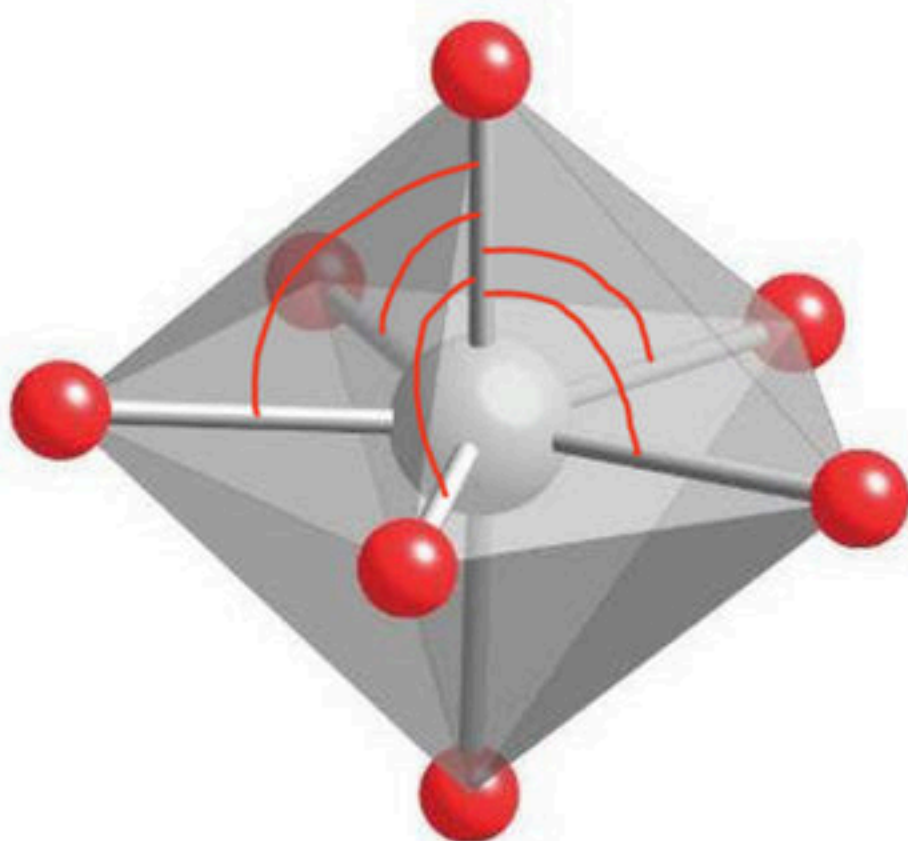
from Aaditya Ag...

pentagonal planar



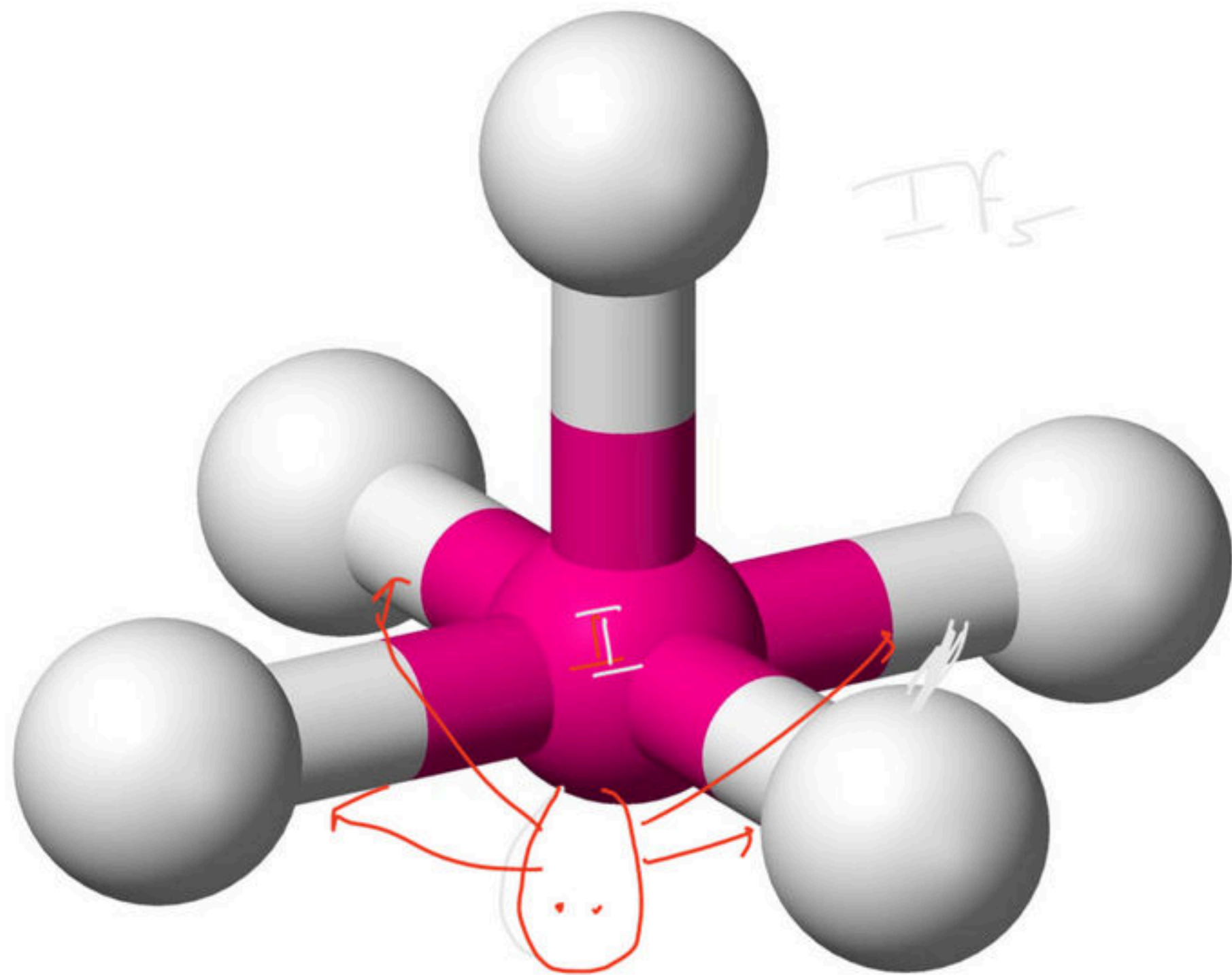


Question
from Vivek





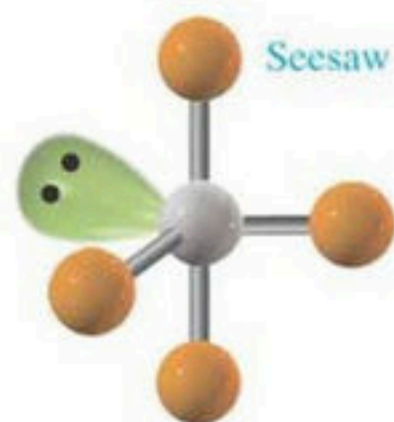
Question
from Raghav





Question

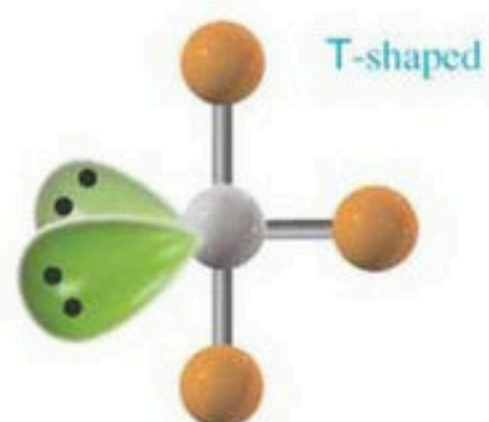
from Raghav



AB_4U 4 bonded atoms (B)
1 lone pair (U) in
equatorial position

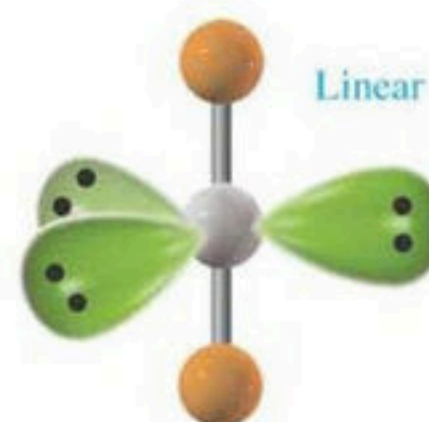
Seesaw molecular geometry
Example: SF_4

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AB_3U_2 3 bonded atoms (B)
2 lone pairs (U) in
equatorial positions

T-shaped molecular geometry
Examples: ClF_3 , BrF_3



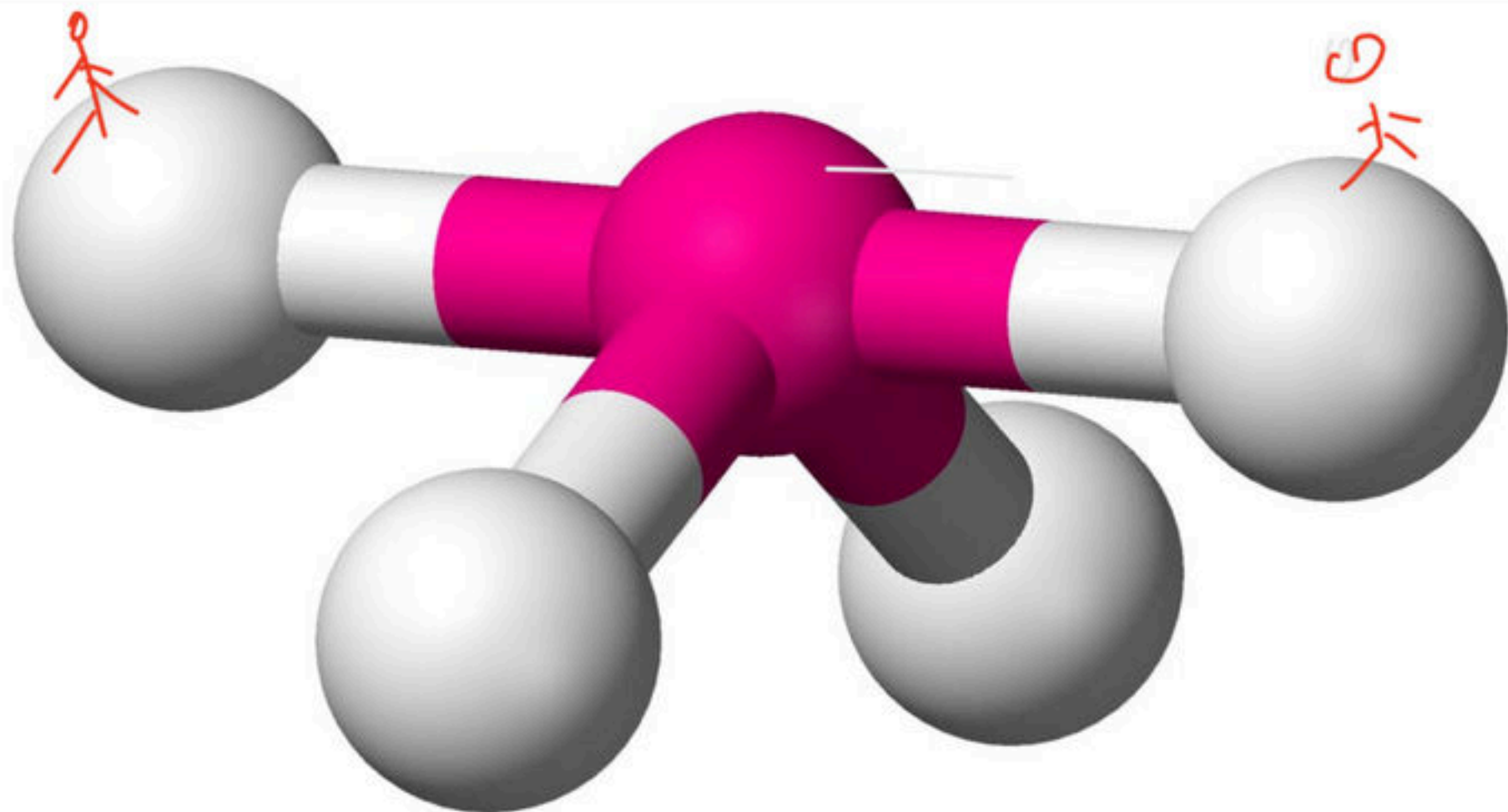
AB_2U_3 2 bonded atoms (B)
3 lone pairs (U) in
equatorial positions

Linear molecular geometry
Examples: XeF_2 , I_3^-



Question

from Krish

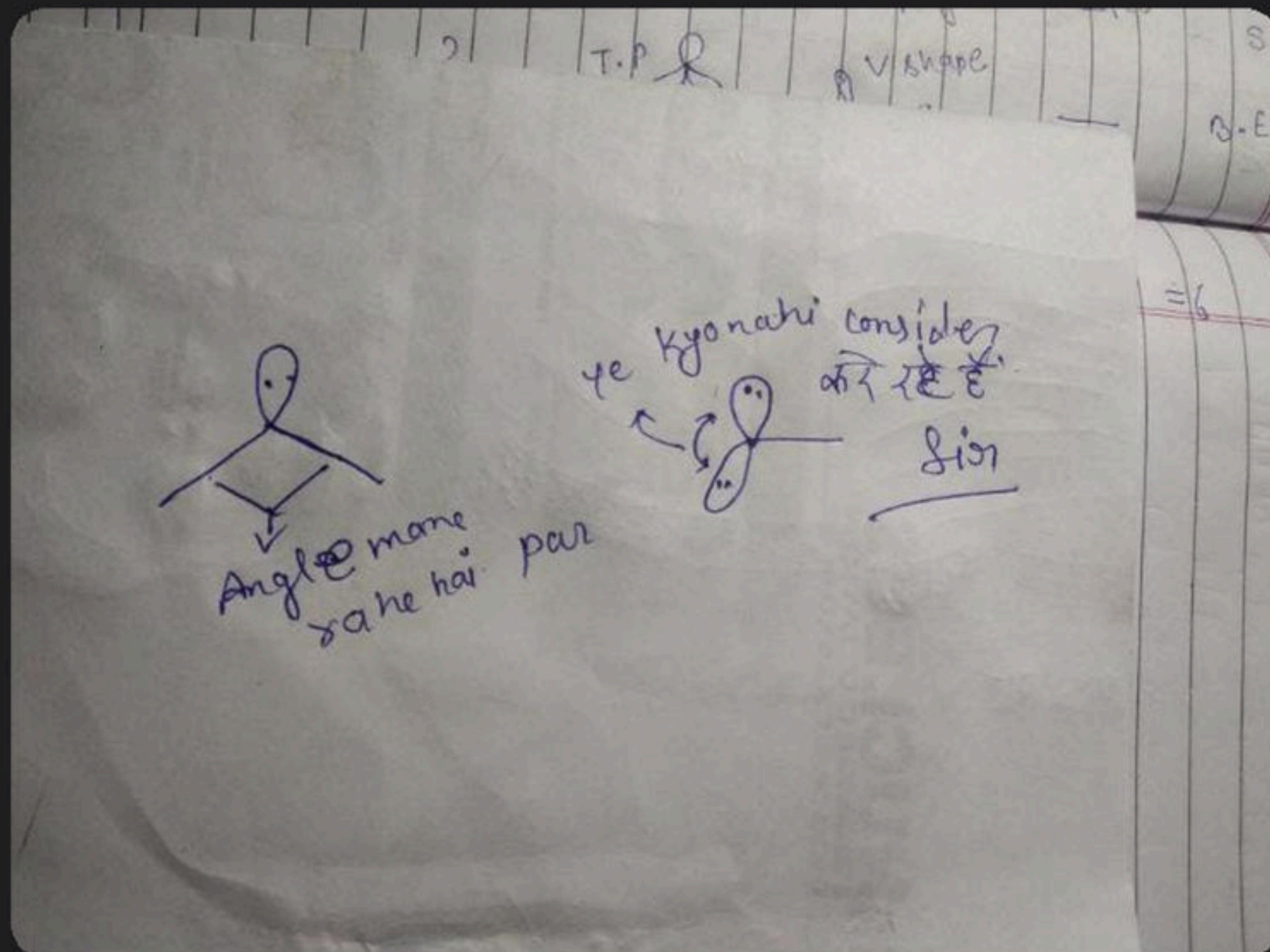


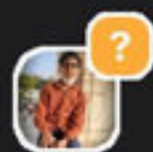


Question

from Ashutosh Y...

Plzz explain sir

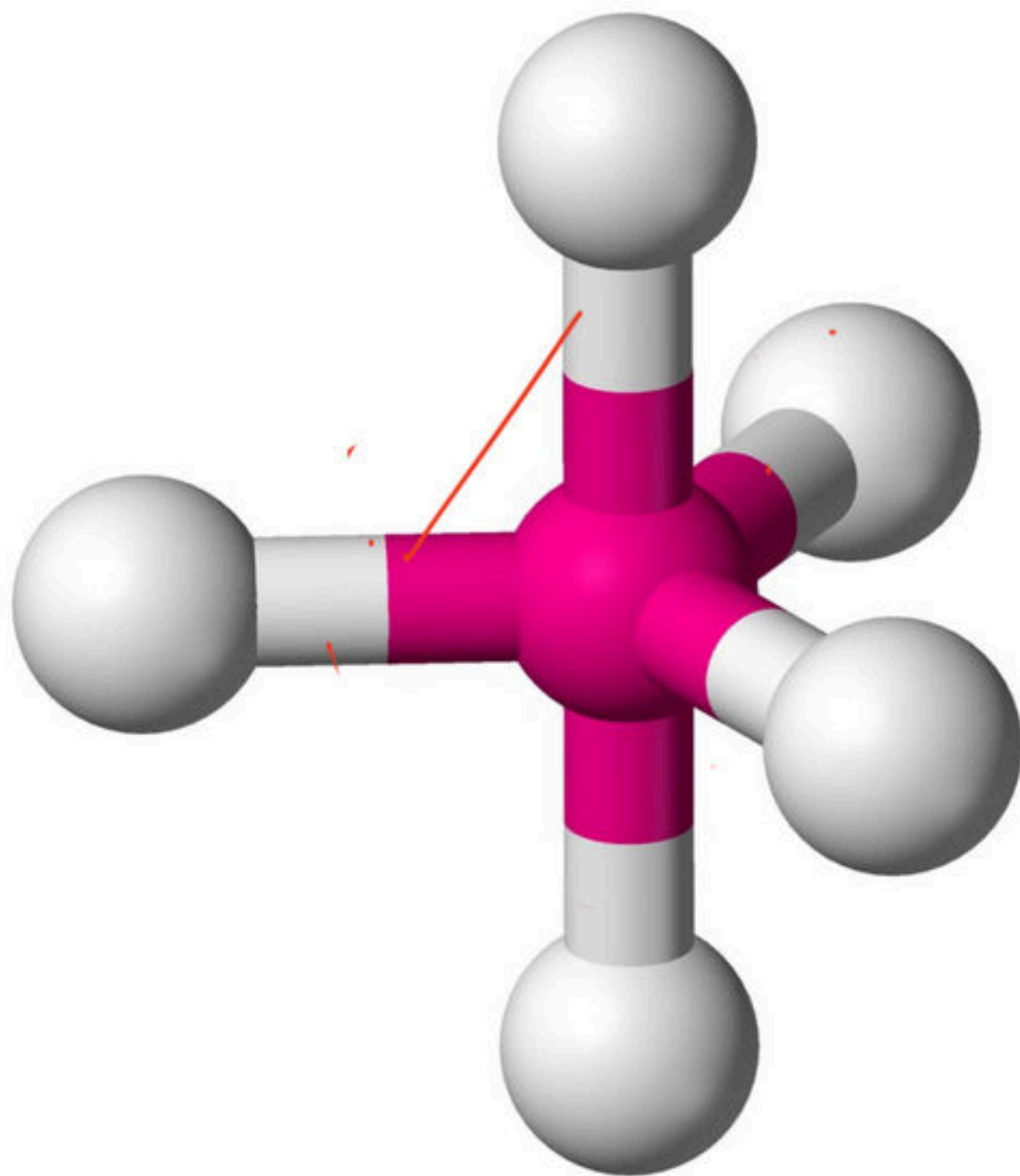




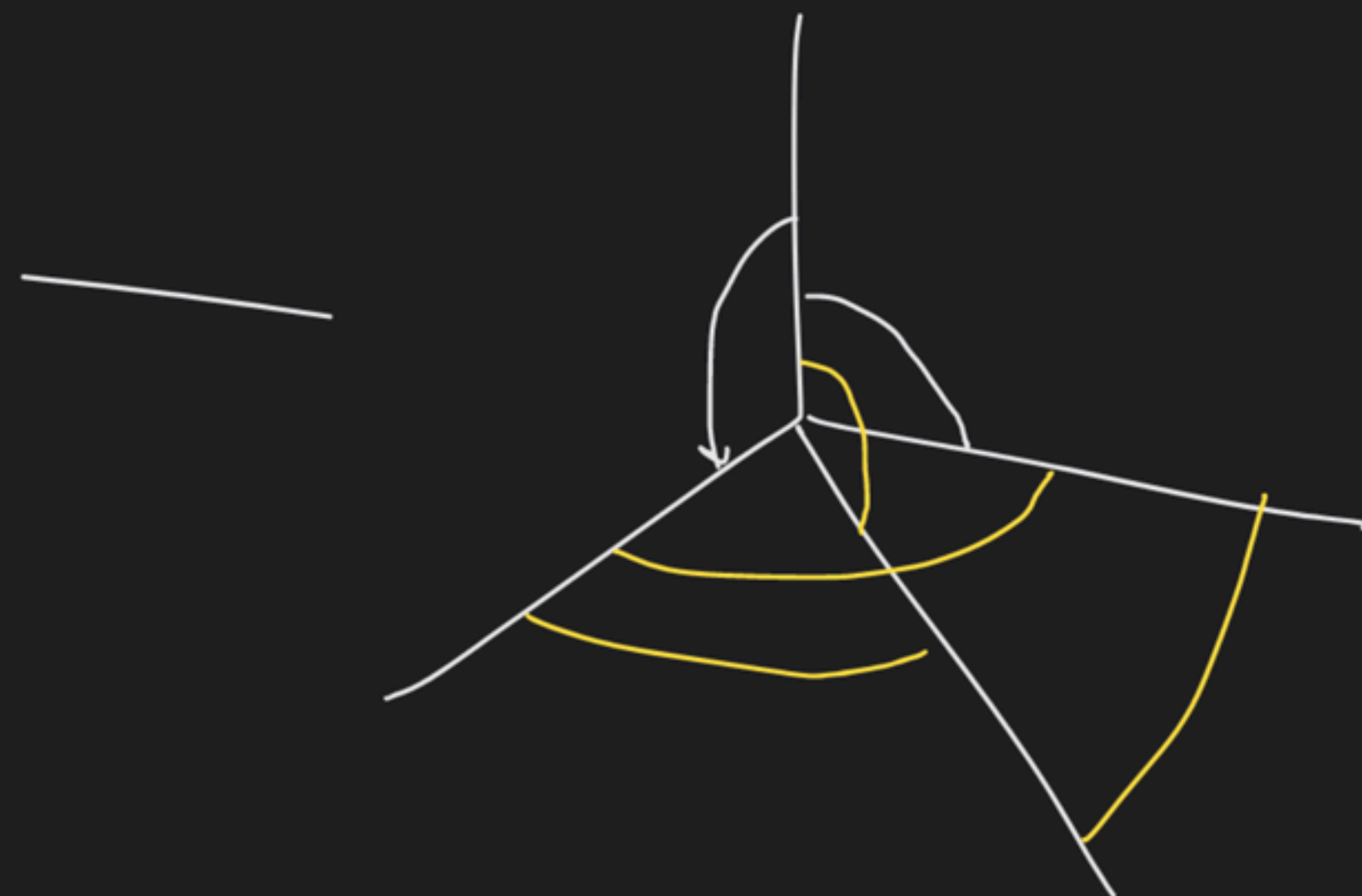
Question

from Aaditya Ag...

Bipyramidal











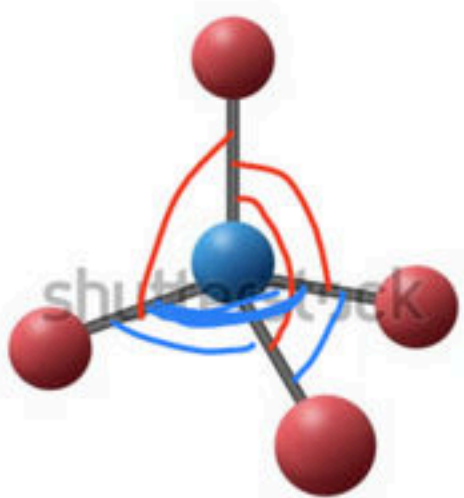
Question
from Monish

YE LIJIYE SIR

My schedule | Unacademy | TETRAHEDRAL 3D - Google Search | 3d Illustration Tetrahedral Molec...

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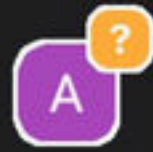
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3d illustration of tetrahedral molecular geometry, a central atom is located at the center.



Question

from Anurag

SIR MADE BY ME.



OH! ANOTHER FOLISH QUSTION



SOMETHING WENT WRONG



REASON BEHIND THIS SMILE



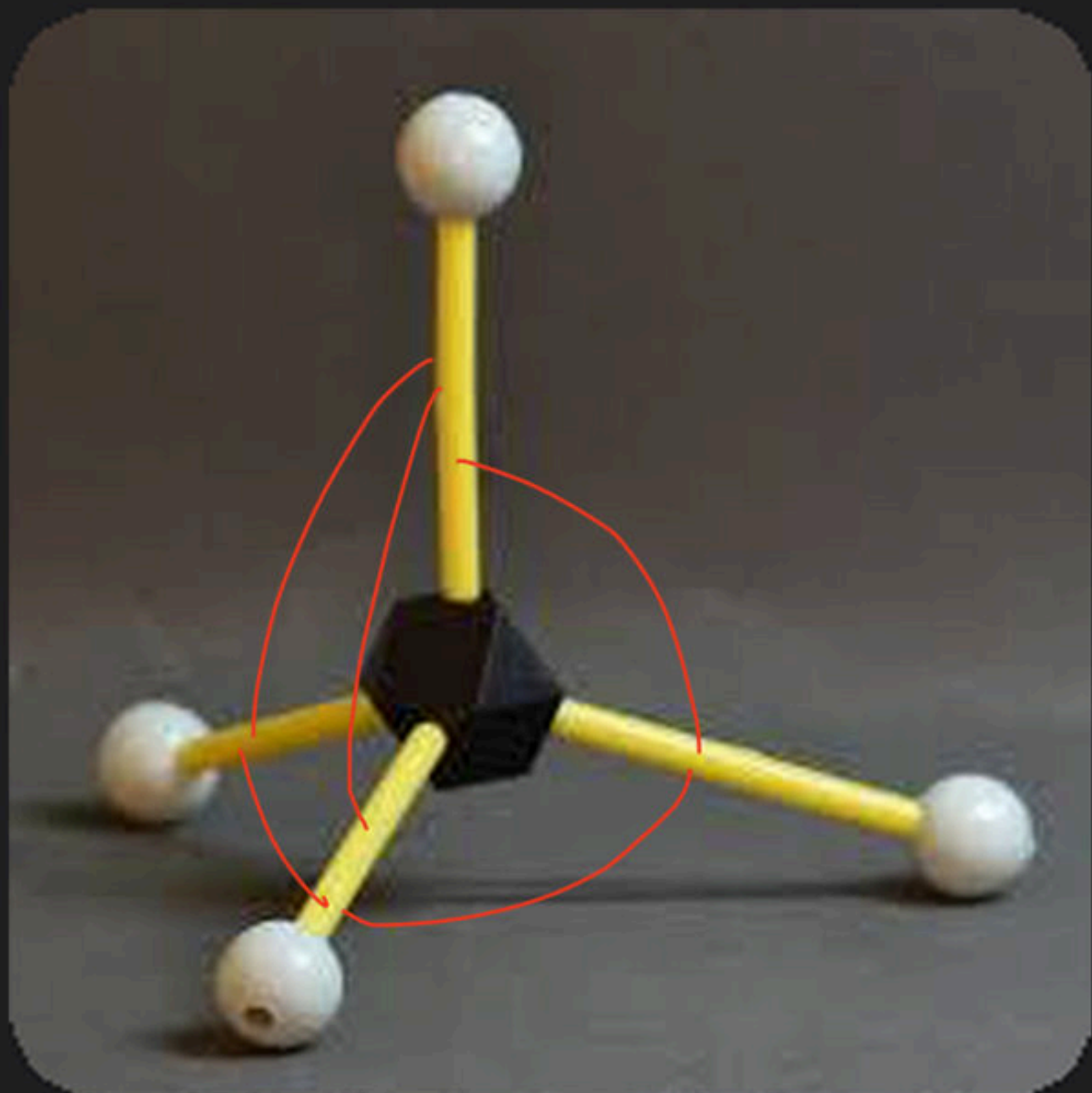
V.J 2.0

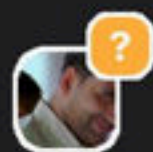


Question

from Raghav

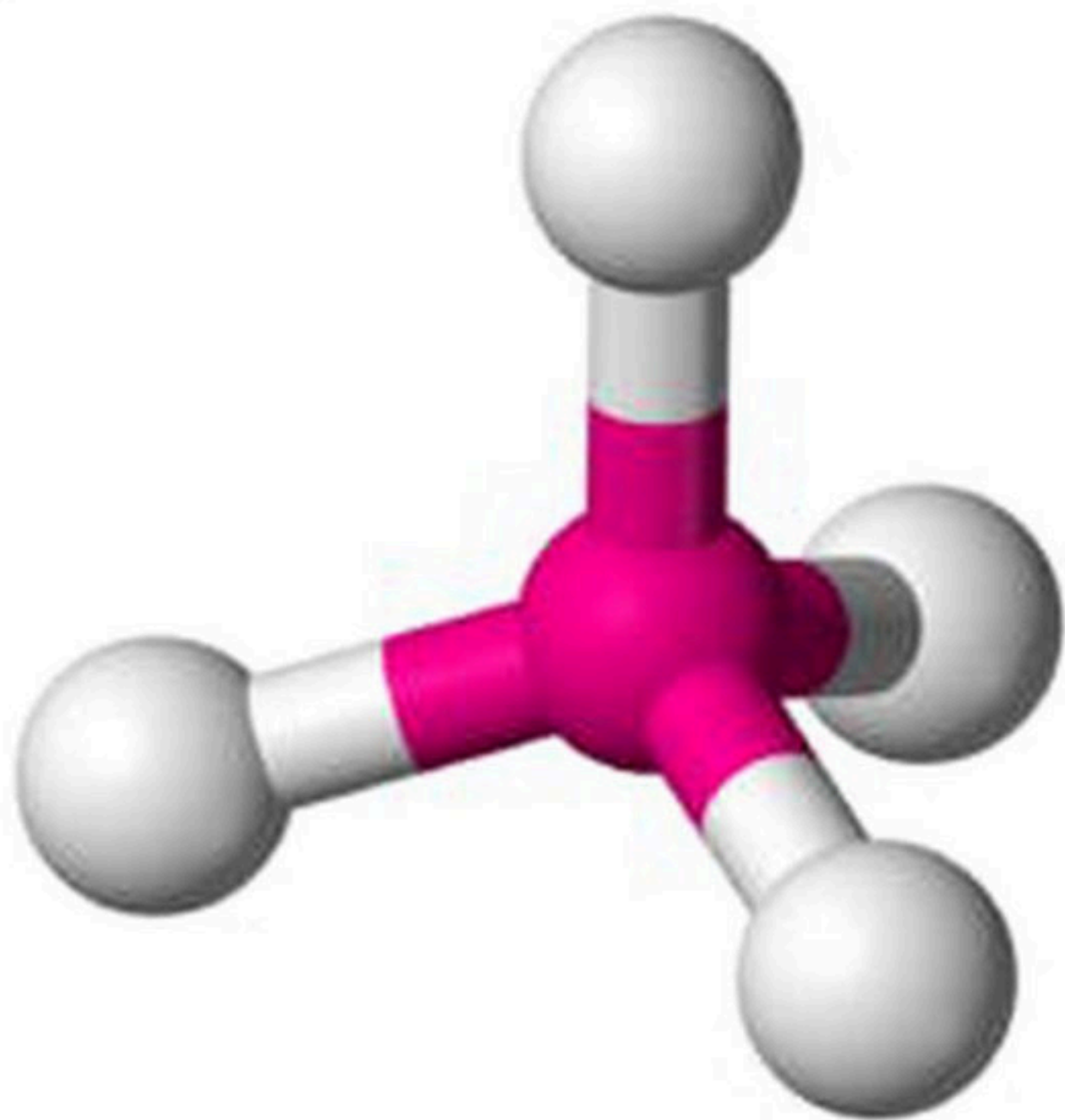
Aisa?





Question

from Pradyumna ...





Question

from YuvrajVidh...

sir ye log ese lete kyu h ??

