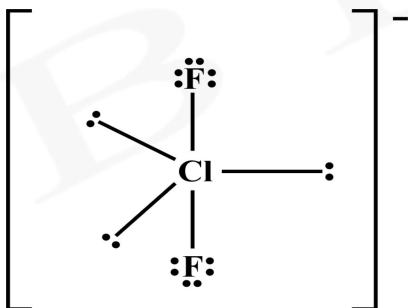
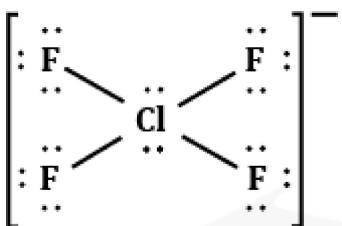


1. The shape of ions $[ClF_4]^-$ and $[ClF_2]^-$ respectively is-

- A. See-saw and linear
- B. See-saw and bent
- C. Tetrahedral and linear
- D. Square planar and linear

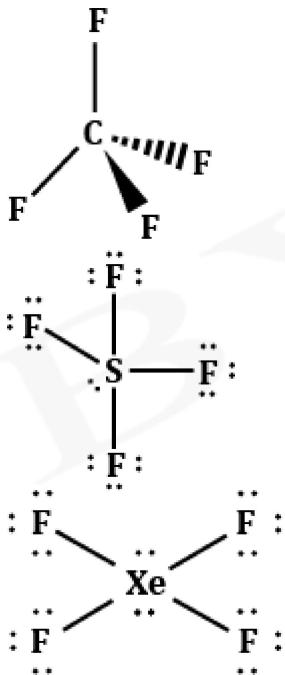
Compound	Bond pair	Lone pair	structure
$[ClF_4]^-$	4	2	Square planar
$[ClF_2]^-$	2	3	linear



2. Molecular shape of CF_4 , SF_4 and XeF_4 are-

- A. The same, with 2, 0 and 1 lone pair of electrons respectively
- B. The same, with 1, 1 and 1 lone pair of electrons respectively
- C. Different, with 0, 1 and 2 lone pair of electrons respectively
- D. Different, with 1, 0 and 2 lone pair of electrons respectively

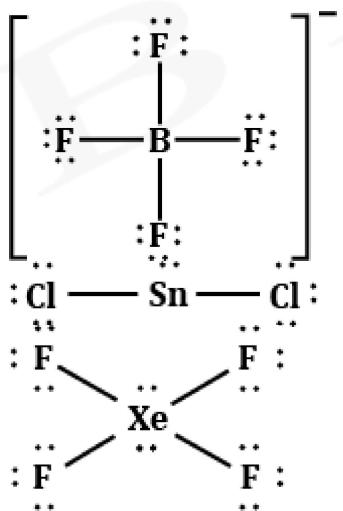
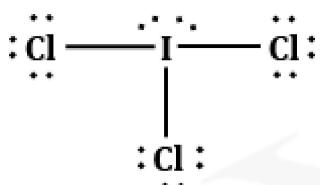
Species	central atoms	valance electrons	bonds	lone pairs	structure
CF_4 ,	C	4	4	0	tetrahedral
SF_4 ,	S	6	4	1	see-saw
XeF_4 ,	Xe	8	4	2	square planar



3. Which of the following molecules/species have minimum number of lone pairs?

- A. ICl_3
- B. BF_4^-
- C. $SnCl_4$
- D. XeF_4

Compound	lone pairs
ICl_3	11
BF_4^-	12
$SnCl_2$	7
XeF_4	14



4. Which species has maximum number of lone pair of electron in central atom?

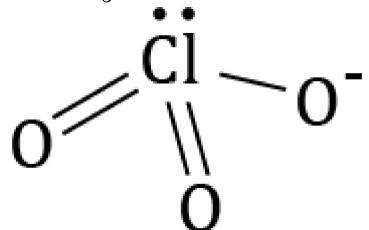
A. ClO_3^-

B. XeF_4

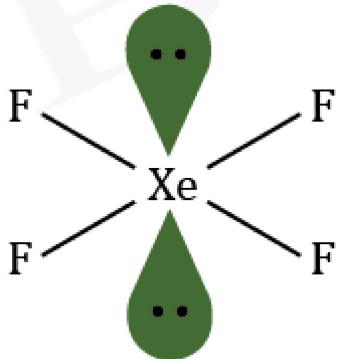
C. SF_4

D. I_3^-

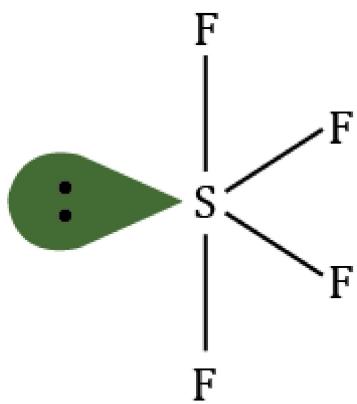
In ClO_3^- , Cl has 1 lone pair .



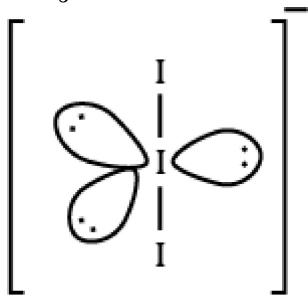
In XeF_4 , Xe has 2 lone pair .



In SF_4 , S has 1 lone pair .



In I_3^- , I has 3 lone pair .



5. XeF_2 is isostructural with-

- A. TeF_2
- B. ICl_2^-
- C. $SbCl_3$
- D. $BaCl_2$

In XeF_2 , Xe is sp^3d hybridised it means geometry is Trigonal bipyramidal. 3 lone pairs on equitorial position to minimise repulsion and 2 F atoms at axial position thus shape is linear.

- (a) TeF_2 six electrons in valance shell.
- (b) In ICl_2^- , I is sp^3d hybridised it means geometry is Trigonal bipyramidal. 3 lone pairs on equitorial position to minimise repulsion and 2 Cl atoms at axial position thus shape is linear.
- (c) In $SbCl_3$, Sb is sp^3 hybridised it means geometry is tetrahedral, but due to lone pair shape is pyramidal.
- (d) $BaCl_2$ is an ionic compound.

