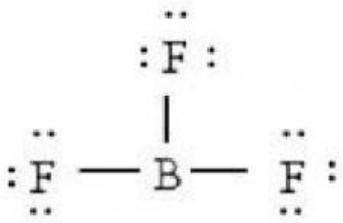
Question 5 b (iii)

Predict the molecular geometry, bond angle, polarity and type of IMF of the BF_3

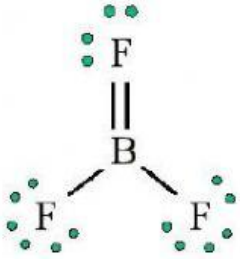
B in Group 13

F in Group 17

- Calculate the formal charge of each atom and determine the correct Lewis structure of BF_3 _____



(A)



(B)

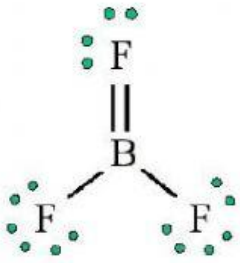
- Electron pair arrangement at central atom B:

  ____ **bonding pairs** electrons.

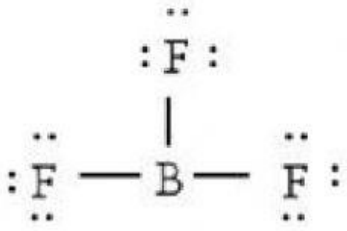
  Basic shape is _____

- VSEPR: The **repulsion** between bonding pairs electrons is _____.

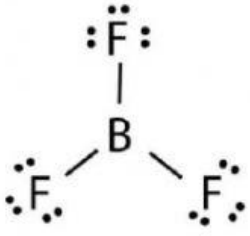
- State the shape of molecule _____ and choose the correct molecular geometry of BF_3 _____



(D)



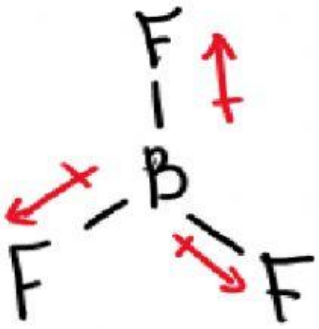
(E)



(F)

LIVEWORKSHEETS

- Every F-B-F bond angle is_____ °
- _____is more electronegative than _____



- Dipole moment can _____ each other.
- Net dipole moment (μ _____ 0)
- Therefore, it is a _____ molecule.
- Intermolecular forces in BF_3: _____

Note:

Hydrogen bond = HB

Dipole-dipole force= DDF (for polar compound)

London Dispersion forces = LDF (for non-polar compound)

LIVEWORKSHEETS