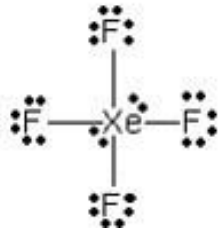
Point Group Practice

Determine the point group for each species.

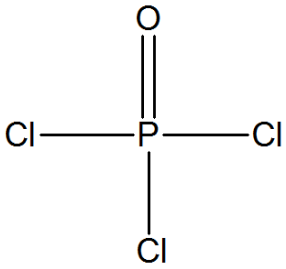
1. CH_2Cl_2

2. XeF_4

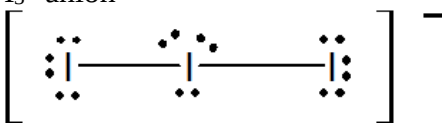


3. HCl

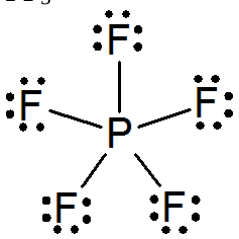
4. $POCl_3$ (P is central element)



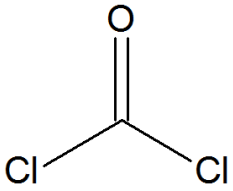
5. I_3^- anion



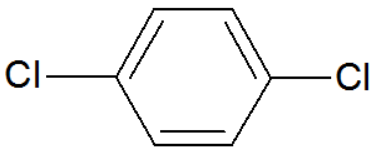
6. PF_5



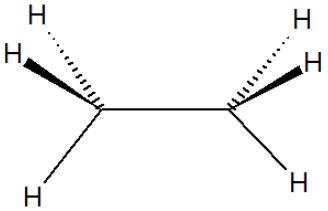
7. $COCl_2$ (C is central element)



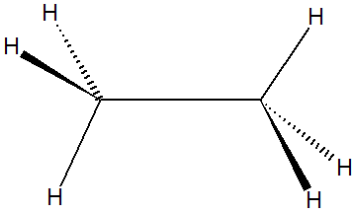
8. para-dichloro benzene



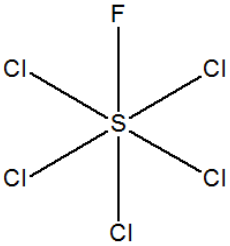
9. ethane C_2H_6 (eclipsed configuration)



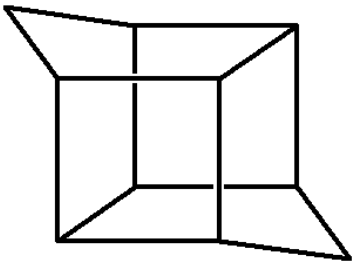
10. ethane C_2H_6 (staggered configuration)



11. SF_5Cl

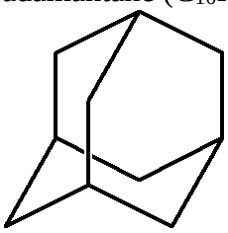


12. dihomocubane

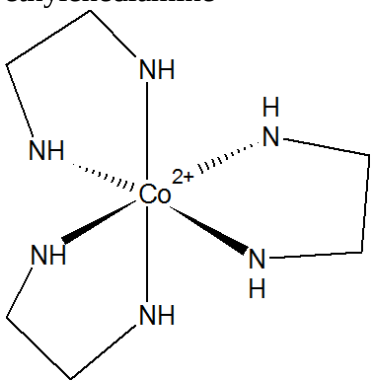


13. carbon monoxide (CO)

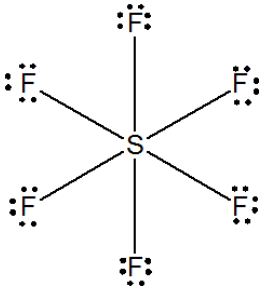
14. adamantane ($C_{10}H_{16}$)



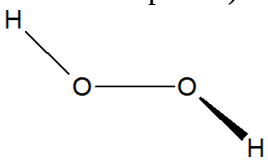
15. $[Co(en)_3]^{2+}$ where en = ethylenediamine



16. SF_6

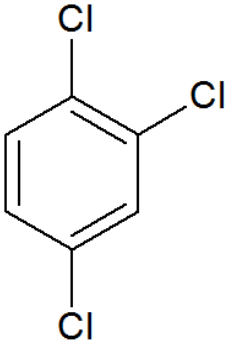


17. H_2O_2 (trans but twisted 20° nonplanar)

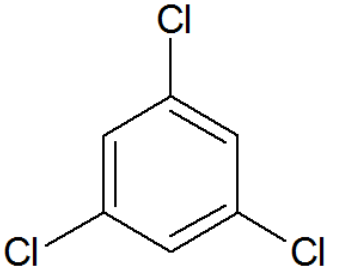


18. Cl_2

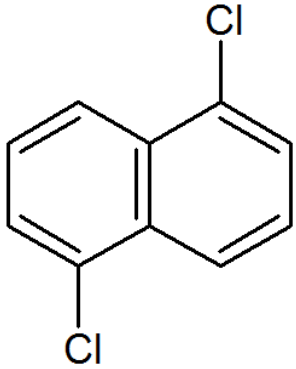
19. 1,2,4-trichlorobenzene



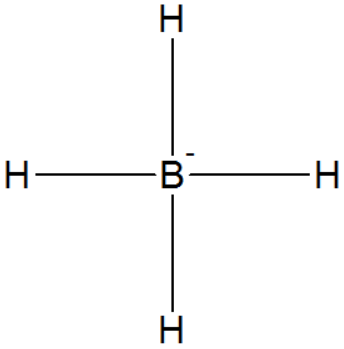
20. 1,3,5-trichlorobenzene



21. 1,5-dichloronapthalene



22. BH_4^- anion



23. cis-$Co(en)_2Cl_2$