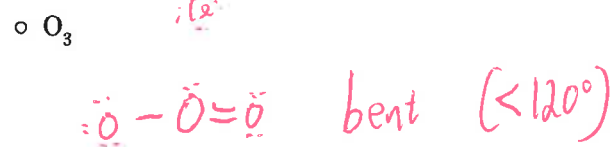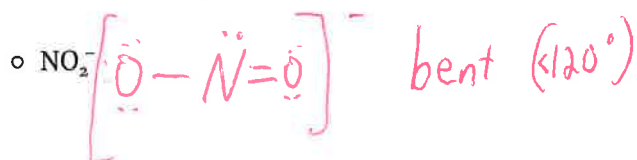Quiz 11.1 – Molecular Geometries

Name: *Key*

Problem 1 (3 points)

Give the molecular geometry for the following compounds:

- NO_2^- $[\ddot{O}-\ddot{N}=\ddot{O}]^-$ bent ($<120°$)

- NH_4^+ $\left[\begin{array}{c}H\\H-\ddot{N}-H\\H\end{array}\right]^+$ tetrahedral ($109.5°$)

- XeF_4 $\ddot{F}-\ddot{Xe}-\ddot{F}$ with F above and below   Square planar ($90°, 180°$)

- PCl_5 $Cl-P-Cl$ trigonal bipyramidal ($90°, 120°, 180°$)

- O_3 $\ddot{O}-\ddot{O}=\ddot{O}$ bent ($<120°$)

Problem 2 (2 points)

Predict the bond angles for each of the compounds above

See above