Name:

1. Launch PyMol by double clicking on atp\_mg.pml (not atp\_mg.pdb).
2. Using screen shots to illustrate your answer, describe the interactions of the magnesium ion with ATP.  
   - What is the overall geometry of the Mg2+ complex?  
   - What are the six Mg2+-oxygen distances? What determines these distances?  
   - If the ion was a Ca2+ ion instead of a Mg2+ ion, how would the geometry differ from what is observed?  
   - If the ion was a Na+ ion instead of a Mg2+ ion, how would the geometry differ from what is observed?