$\qquad$

## Quiz \#1

1. (10 points)

Draw Newman projections of the three staggered conformations of 3-methylpentane, formed by rotation about the C2-C3 bond. Draw carefully positioned intersecting arcs to denote all sources of steric strain for each of these conformations. Denote the least stable of these three conformations. Describe your reasoning clearly and concisely.
2. (10 points)

Draw all the major resonance structures for the following cation to show the delocalization of charge. In order to do so, use the curved-arrow notation to indicate the corresponding delocalization of electron density.


