GIS I Assignment 03 - Lat/Long vs State Plane Coordinates (10 pts)

One of the more confusing aspects of GIS mapping has to do with coordinate systems and projections. Arcview 8.x and 9.x now have built-in capability to automatically project data into the coordinate system of the View window, but it is still VERY important for the GIS user to understand WHAT Arcview is doing “behind the scenes”. This is a simple exercise that will - hopefully - clarify this for you.

1. (5 pts) Determine the coordinates (including UNITS of measurement) of your home in:
   a) Latitude-Longitude Degrees-Minutes-Seconds
   b) Latitude-Longitude Decimal Degrees
   c) New Jersey NAD 1927 State Plane Coordinates
   d) New Jersey NAD 1983 State Plane Coordinates
   e) UTM Coordinates

2. (5 pts) On the dimensionless (i.e., no units of measurement) coordinate system below, plot and label (a-e) the general position of your home according to each of your 5 preceding answers.

**NOTE:** For an additional 5 points, explain HOW the location of your home can be plotted 5 different ways!