

**VR Systems CPSC 411/611 Take Home Assignment**

**Quaternion Practice Problems: (due Tuesday, Nov 8<sup>th</sup> beginning of class)**

**Solve the following problems using Quaternion based rotation;**

1. Point  $P = (0, 1.5, 0.5)$  is rotated 90 degrees about the y-axis. What is the position of the transformed point  $P'$ . Please clearly show all steps of your solution.
2. Point  $P = (1.5, 0.25, 0.5)$  is rotated about the axis  $(1, 0, 1)$  by 130 degrees. What is the position of the transformed point  $P'$ . Please clearly show all steps of your solution.