

Name : \_\_\_\_\_

**240 - Calculus III: Test 2 Extra Credit**

**DIRECTIONS: Show all work!** There is a total of 5 points which will be added to Test 2.

A projectile is fired from ground level at an angle of  $30^\circ$  with an initial velocity of 75 feet per second.

a) Write the vector-valued function for the path of the projectile. (Use the back of this sheet to show work)

b) Use a graphing calculator to graph the path of the projectile. [Make sure to label a few x or y values to show that it is the correct path]

c) Approximate the maximum height and the range of the projectile.