

## Homework 2

Due 9/1/11

1. Problem 2.22 of text
2. You will quickly learn that  $\gamma (= 1/\sqrt{1 - v^2/c^2})$  is an important quantity in relativity. Using software of your choice (Igor is one option) make a plot of  $\gamma$  vs.  $v/c$ . The latter ( $v/c$ ) is also known as  $\beta$ . **Note:** A plot of  $A$  vs.  $B$  means that  $A$  is on the y-axis and  $B$  is on the x-axis. Make sure that the numbers on both axes are legible. According to the plot, at what value of  $v/c$ , approximately, does  $\gamma$  reach 1.1?