APPM 2450 Calculus 3 Computer Lab
Lab Exercise: Odds and Ends

Create a Mathematica notebook that does all of the following. Feel free to ask your neighbor or your lab instructor for help if you get stuck.

- Plot $x^2 - 1$ from $-1 \leq x \leq 1$.
- Move the origin to $(-1, 1)$.
- Plot $\tan x$ from $0 \leq x \leq 1$.
- Find the location where $\tan x = \dfrac{1}{2}$.
- Add a `Point` object at this location to your plot.
- Add two `Line` objects corresponding to the x and y intersepts at this location to your plot.
- Construct 3 parametric plots and halt the display of each plot.
- Show these 3 plot on one figure.
- Use `Table` to construct two random lists of length 20.
- Use `Thread` to join the two lists.
- Use `ListPlot` to plot the resulting joined lists.