

## 2-22-2016: A few things about MTH 229 of interest:

1. The project on *functions* was shortened. You do not need to complete the questions *after* the section on cases. (You do need to do that section.)

2. The project on *Plotting* has been shortened. All questions from **Creating sequences** on do not need to be done.

A few comments on this project:

- The notes mention a command `gadfly()`. This is unnecessary and should be omitted. (Ask me why if you are curious)
- The notes mention one way to plot two (or more) functions: `plot([f,g], a, b)`. The square brackets (`[]`) are used through **Julia** to combine values into a container. In this case, the two functions then will be plotted over  $[a, b]$ . The alternative is to use a `plot(f, a, b)` command to plot **f** **and then** a `plot!(g, a, b)` command to *add* the plot of **g**. These should be in the same cell. (Julia has a convention of functions that change or mutate something ending with an exclamation point. Here this modifies the current graphic.)

3. **If you are using juliabox** – and I encourage you to do so – you need to add some packages to your environment. It is mostly painless. Packages are like “apps” on a phone. To use them, we must install them. The steps below do so. Here are the steps:

- Enter the command `Pkg.update()`. This will update the list of packages. Ignore the red.
- Enter the command `Pkg.add("Roots")`. This will add a package. Again, ignore the red.
- Enter the command `Pkg.add("PyCall")`.
- Enter the command `Pkg.add("SymPy")`.

That all goes according to plan. There is a glitch though. We first try to *load* the **Plots** package. this is done with the command: `using Plots`. It will take a while as many things are being set up so it will be faster the next time. However, an error will occur.

No fear, we just need to close and restart the notebook. (This can be done by the “Restart” menu item under “Kernel”.)

You can enter all this at once by executing all these commands in one cell:

```
Pkg.update()
Pkg.add("Roots")
Pkg.add("PyCall")
Pkg.add("SymPy")
using Plots
```

and then restarting. (Pay special attention to capital letters.)