2	10-Jun	Write + compile code for box potential (problem 5.1)		Eigenvalues don't match solution manual
		Write + compile code for potential (problem 5.2)		
2	11-Jun	Add graphs to original Runge Kutta code		Had lots of trouble with this before I finally got it working
2	12-Jun	Get gnuplot working, generate plots for potential and psi of 5.1, 5.1.1, and 5.1.2		
		Correct output eigenvalues and fix plot of harmonic oscillator		Eigenvalues: 1.1, 3.1, 5.1, 7.1
				Plot is comprised of 4 different wavefunctions
		5.2.1 Concept of Calculations in the Continuation Method		Reading + notes
2	13-Jun	Correct output eigenvalues and plot of problem 5.1		Was able to get within "more reasonable" distance of solns
		Correct output eigenvalues and plot of problem 5.2		*both problems still in progress
		Write Runge-Kutta code for test integrals		
2	14-Jun	Finish writing code + graphing Runge-Kutta results for test integrals		
		Continue working on problems 5.1-2 to fix algorithm issues		
Goals for next week: Finish through section 5.2.2				

The table above contains a full record of all tasks completed this past week (June 10-14). I began by writing up the programs for problems 5.1 and 5.2. However, I ran into a large roadblock on Tuesday, where I spent a long time figuring out how to install the necessary add-ons to plot my results using my current operating system. After I finally got gnuplot up and running, I was able to obtain graphs for the first three of my programs of the wave function Ψ. However, the figures did not look correct at all.

On Wednesday I had my weekly meeting with Yoshida-san, and he suggested that I plot the potential function V for each case as well as Ψ. Doing this clarified more of the theory for me and helped me to resolve the issues with my plot for Ψ of the harmonic oscillator. I was able to obtain the correct eigenvalues with my code (following the rule $E = 2n + 1$) and a plot of four wave functions.

Yoshida-san also suggested that I make a test Runge-Kutta program to develop my understanding further. I have done this and have tested for two simple functions: $\sin(x)$ and $\cos(x)$. I also made plots of the results after integration. I will be compiling all of these plots I have mentioned thus far into slides to share at my next weekly meeting. I should also mention that while I am working on the coding side of things, I have also begun to read up on the continuation method so that I am ready to begin work on the problems from section 5.2.2 next week.