7	15-Jul	National holiday (Marine Day)	
7	16-Jul	Continued troubleshooting problem 5.4	Having some slight trouble getting result $\langle p^2 \rangle = \langle V(x) \rangle$
		Started work on code for 3D case (using 1D as a base)	Got correct eigenvalues but need to fix graph
7	17-Jul	Continued coding for 3D case	
		Study of radial component of 3D Schrödinger equation	
7	18-Jul	Fixed + finished problem 5.4	Obtained desired result (LOTS of troubleshooting)
7	19-Jul	Completed plots for Problem 5.4	Normalized and plotted associated eigenfunctions
		Study of virial theorem	
		Coding for Problem 5.5 (confirming virial theorem)	

Goals for next week:	finish problem 5.5, 3D Schrödinger equation	

On Tuesday and Wednesday, I began working on my code for the three-dimensional harmonic oscillator. This included solving for the radial component of the Schrödinger equation analytically. I also continued my work on Problem 5.4, which had previously been giving me some trouble. However, I'm pleased to say that on Thursday I was able to finish it off and get the desired result. I have also obtained plots of the normalized eigenfunctions for the harmonic oscillator (first four values of n). On Friday I worked on Problem 5.5, which has to do with confirming the virial theorem for the quantum case. I also did some related study of the virial theorem to better understand what is being asked. I hope to include my work on problems 5.4 and 5.5 (with related concepts/theory) and the three-dimensional harmonic oscillator in my final presentation. If there is time, I also would like to include some work with the nuclear shell model.