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Project Proposal Draft

I am leaning toward option one, which is to select three projects from the end of chapters and complete them. For variety sake, I will take one project from chapters one through five, one project from chapters six through ten, and one project from chapters eleven and onward.

From the first chapter group, I will do project one from chapter two. This question is about comparing weight and height to amount of work done and kinetic energy. I choose this as I have access to a running club, and could potentially grab some original data instead of creating fake sets. I can certainly further the scope of the project, but until some test data is collected, I am unsure how.

From the second chapter group, I will answer project two from chapter nine. This problem looks into the cost and benefits of the 401Ks vs. Social Security. This problem provides a large amount of room to add more aspects. I could include alternate savings types, or how the decision could change over time.

For the last section of chapters we have not yet covered, I am leaning toward project three from chapter twelve. This problem is about a modern flu epidemic and how it can be modeled with systems of differential equations. The problem itself gives a limited amount of conditions to fulfill, which leaves the option to add more constraints, or change the initial setup.

The projects I have chosen are my initial thoughts on what can somewhat cover the majority of what we have done this semester. I have not read all the chapters yet, and the choice of projects to go after could change when I do.