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My goals for this week were to:

Choose my topic, pick and meet with my advisor, and then come up with a tentative schedule.

I made the following progress on these:

I'm choosing category theory as my topic with an optional extension into applied category theory as time and enthusiasm permit. Dr. Menendez agreed to be my advisor and we came up with a schedule for check-ins that should work for both of us. She also looked over my plan and offered some suggestions for scope and timeline and some possible learning resources. I'm now working on scheduling out the work/readings for this term based on the following learning resources:

1. *The Joy of Abstraction*. This will provide an relatively breezy introduction to basics that I'll read before moving on to the same topic in my main text.
2. *Category Theory in Context*. This will be the primary text for the core of my project, and thereby provide the scope of that core.
3. *Sets for Mathematics*. I'll be using this as a secondary text for when I get stuck and want a second explanation.
4. *Seven Sketches in Compositionality*. This will be the main text for the extension into applied category theory, but I might also use it to clarify concepts from the main text if needed.

My tentative schedule will be to read through, work out (most of) the exercises, and then TeX up a rough summary for one of the six chapters of *Category Theory in Context* each week for the next six weeks. If I'm able to maintain this pace for the first three weeks, I'll commit to extending the project into applications. If not, I'll drop it to focus on the core.

I have the following questions and concerns I want to discuss with my capstone advisor:

I'll ask her to look over my schedule and then ask any about any questions on the material that come up. My guess is I might get a little befuddled by natural transformations since they confused me the first time I read *The Joy of Abstraction* last term.

Some tentative goals for the coming week are:

Write the annotated bibliography entry for *The Joy of Abstraction*, work through the first chapter of *Category Theory in Context*, and write up a rough summary for categories, functors, and natural transformations.