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My goals for this week were to:

1. Finish my definitions and look them over for obvious typos and mistakes.
2. Add commutative diagrams to my definitions.
3. Figure out what's next: do I go big or do I take the easy win?

I made the following progress on these:

I made good progress this week. I added about 10 diagrams to my definitions and looked them over for typos. I also finished the definition for a monoidal category (complete with diagrams for the triangle and pentagon identities!) and added my bibliography. Talking to Dr. Menendez yesterday I was able to clear up questions I had about my bibliography, the Yoneda lemma, and the direction for my project. She agreed that I could extend the project into applications but that I would need to start right away.

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

Nothing right now since I spoke with her yesterday. I imagine we'll discuss topics and organization for the applied section during our next meeting.

Some tentative goals for the coming week are:

1. Understand the following properties that a monoidal category can have: symmetric, closed, and Cartesian. TeX up the definitions with diagrams.
2. Start reading "Categorical Systems Theory." Finish a quick read of the first two chapters to outline the concepts and prepare for a deep dive of chapter 1 next week.
3. Start thinking of applications / systems to simulate.