BAHLS: So there's a lot of going over past research and trying to situate what you're doing in the context of what others have done. So often, when you're starting a project, you'll start off with a pretty substantial literature review where you'll go back over and see what's been said before and you'll try to understand what it says about what you're working on. And then you'll-- once you've got some ideas to what has come before you and you've got some idea as to how you're going to build on that work, then you can often just start playing with numbers. If you're in an applied field, you might start with data that you've actually received from someone else's laboratory or from someone else's observations and try to understand what that data look like in order to understand perhaps how to model it or how to mathematize the problem.

But if you're in a more abstract or pure mathematics area, you might have to generate the data yourself. And if you have some conjecture about how certain numbers behave, maybe you can write a little computer code to analyze a whole bunch-- generate a whole bunch of those numbers and analyze whatever phenomenon you're trying to measure about them. And here, when I'm saying "numbers," obviously, you can get much, much more complicated mathematical objects. But sometimes, the objects that mathematicians deal with are just simple numbers, and you're trying to understand some property about those numbers.

So you're looking at what others have done, you're looking at generating data or gathering data from someone else's observations, and then just sort of play with that. Work with that. Make some conjectures about it.

Maybe make a hypothesis or two. Test that hypothesis. Move on. Gather a little more data and so forth. So it just sort of builds from there.