

Questions to Ask to Identify a Supportive Graduate Program
Written by Edna Jones on December 29, 2023

When I was looking at mathematics PhD programs, I had two major criteria:

- (1) I wanted a graduate school with a friendly, supportive atmosphere.
- (2) The school had to have a good number theory program.

(By the time I was looking at math PhD programs, I was very interested in number theory and wanted to be able to pursue this interest at whatever institution I was at.)

Identifying schools with good number theory programs was relatively easy. I could look at rankings, such as *U.S. News & World Report's* list of best mathematics programs (<https://www.usnews.com/best-graduate-schools/top-science-schools/mathematics-rankings>). I could also ask professors about which schools had good number theory programs. By looking at rankings and talking with multiple professors, I feel like I got a pretty good idea of which schools had good reputations for number theory.

Figuring out which graduate schools had friendly, supportive atmospheres was a bit more challenging. Different people have different experiences with the same graduate program, so you will get different answers to the same questions. You will have to determine which answers are the most relevant to you.

I learned that I needed to **talk to graduate students, professors, staff, etc., from a variety of backgrounds and schools**. Each person will have their own perspective, background, and experiences and will answer your questions differently based on their perspective, background, and experiences. To get a fuller picture of the “true” answers to your questions, it helps to talk to a bunch of people from different backgrounds.

Now, what were the questions that I asked to help me determine if a school had a friendly, supportive atmosphere? Here is a list of some of the questions that I asked with some of the reasoning as to why I asked them:

- What do you like the most about the graduate program? What do you like the least about the graduate program?
 - o These questions told me what people at the institution valued. These questions also told me some of the strengths and weaknesses of the institution.
- Are there social events or graduate student seminars?
 - o Math graduate program social events and graduate student seminars can help one see other graduate students on a regular basis and can help create a sense of community among the graduate students.
- How is the graduate program structured?
 - o In some PhD programs, first-year students are all taking the same classes. This can encourage first-year students to work together and to get to know each other. In contrast, there are other PhD programs in which students start working on research immediately and are not required to see other first-year students on a regular basis in classes.

- How are students prepared and supported to teach effectively?
 - o Graduate students in mathematics almost always teach some time during their PhD program in the U.S. That being said, how students are prepared and supported to teach varies greatly. Some graduate programs may prepare graduate students with a semester-long teaching training class before they become teaching assistants. Others might have graduate students be the instructor of record for a class after only a week of training on teaching. Then the amount of support graduate students have once they begin teaching may vary from having very little support to having a very coordinated course with all the materials provided.
- How are students mentored and advised?
 - o Many graduate programs have students assigned a first-year mentor who is their official mentor/advisor until they determine their research advisor. Different graduate programs have different policies and expectations as to how frequently mentors/advisors are supposed to meet with their students. Also, some people are better at mentoring and/or advising students than others.

For some more questions about identifying a supportive graduate program in math, see the blogpost “Questions to Ask to Identify a Supportive Graduate Program as a Woman or Gender Minority in Math” by Brittany Gelb, Kathryn Beck, Joy Hamlin, Hamidreza Mahmoudian, Nkhalo Malawo, Lucy Martinez, and Rebecca Whitman (<https://www.mathvalues.org/masterblog/questions-to-ask-to-identify-a-supportive-graduate-program-as-a-woman-or-gender-minority-in-math>). I feel like many of their questions on faculty relationships and mentorship, department culture, program completion, and living are relevant regardless of one’s gender.