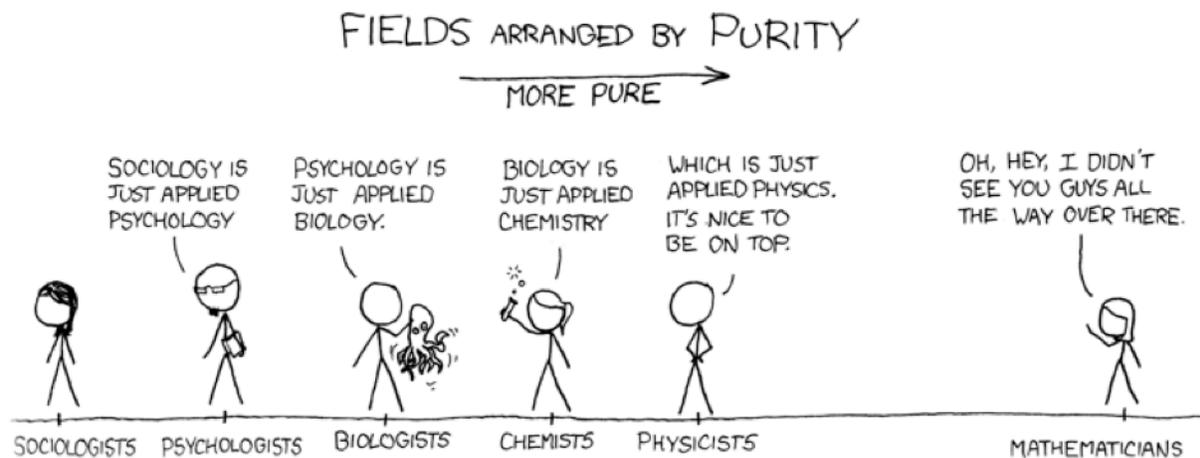


Online Resources

- AWM Website: We have an extensive list of resources available.
<http://www.math.ucsd.edu/~awm>
- Official List of REUs (Research Experiences for Undergraduates) published by NSF (National Science Foundation) who funds most of the available REUs.
[\[http://www.nsf.gov/crssprgm/reu/list_result.cfm?unitid=5044\]](http://www.nsf.gov/crssprgm/reu/list_result.cfm?unitid=5044)
- Math GRE Subject Test: This website has information about the test including how to sign up, when the test is offered, and what material is covered.
[\[http://www.ets.org/gre/institutions/about/subject/index.html#math\]](http://www.ets.org/gre/institutions/about/subject/index.html#math)
- GRE Math Subject Test Prep: The following are links to the Amazon availability of two most popular books, but they can also be found in many other bookstores:
 - GRE Mathematics: Published by REA, this book contains 6 full tests.
[\[http://www.amazon.com/GRE-Mathematics-REA-Best-Preps/dp/0878916377/ref=sr_1_5?ie=UTF8&s=books&qid=1256235115&sr=1-5\]](http://www.amazon.com/GRE-Mathematics-REA-Best-Preps/dp/0878916377/ref=sr_1_5?ie=UTF8&s=books&qid=1256235115&sr=1-5)
 - Cracking the GRE Math Test: Published by Princeton Review. [\[http://www.amazon.com/Cracking-GRE-Math-Test-3rd/dp/0375764917/ref=pd_bxgy_b_text_b\]](http://www.amazon.com/Cracking-GRE-Math-Test-3rd/dp/0375764917/ref=pd_bxgy_b_text_b)
- PhDs.org: This website allows searching graduate schools based upon a variety of criteria including academic quality, financial aid offered, and location. [\[http://graduate-school.phds.org/rankings/mathematics\]](http://graduate-school.phds.org/rankings/mathematics)
- US News and World Report: This website has rankings of mathematics graduate schools (along with the popular undergraduate school rankings). [\[http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-mathematics-programs/rankings\]](http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-mathematics-programs/rankings)
- AMS Rankings: The AMS ranks mathematics programs in the United States every year. Most graduate programs care most about this list of rankings.
[\[http://www.ams.org/profession/data/annual-survey/emp-groups_des\]](http://www.ams.org/profession/data/annual-survey/emp-groups_des)
- The AMS also provides this very large pdf with statistics about graduate programs, including statistics about the availability of funding. [\[http://www.ams.org/employment/asst.pdf\]](http://www.ams.org/employment/asst.pdf)
- Mathematics Genealogy Project: A fun way to determine what research recent graduates of a particular advisor have done. [\[http://genealogy.math.ndsu.nodak.edu/index.php\]](http://genealogy.math.ndsu.nodak.edu/index.php)



xkcd.com/435

INFORMATION ABOUT PREPARING FOR MATHEMATICS GRADUATE SCHOOL

Choosing Classes (UCSD course numbers in parentheses)

In order to be prepared for graduate level work, you may need to take more courses than are simply required to obtain your degree. Here is a list of courses generally suggested that entering graduate students have taken. It is in no way intended to be a complete list of classes you take, so you should work with your undergraduate advisor to get the best list for you.

- A year of abstract algebra (100A/B/C) ~ this should include some advanced linear algebra
- A year of real analysis (140 A/B/C) ~ Walter Rudin's book "Foundations of Mathematical Analysis" is a good standard text
- Point set topology (190)
- Complex analysis (120A)
- Graduate courses if they are available to you at your institution and recommended by your professors (you should take advantage of all the opportunities available to you, and *doing well* in graduate courses proves that you can do graduate work)

Math Subject GRE

In addition to the general GRE test, you will be required to take the mathematics subject GRE examination. Here is some information to help you prepare for that exam.

- Offered three times a year (early in each month): April, October, November
- 50% of the test is on calculus (includes differential equations)
- 25% of the test covers algebra (includes linear algebra, abstract algebra, and number theory)
- 25% of the test covers other topics (including but not limited to: real and complex analysis, probability, statistics, topology, geometry, discrete mathematics, numerical analysis)
- Some graduate schools take this test very seriously and will not consider you if you do not do well enough on it. Others are known for not caring as much about how you do on this test. However, this is the only standardization across all applicants, and so it is best to take the test seriously and study for it.
- Since calculus is 50% of the exam, you may want to refresh your calculus knowledge throughout your college career. A great way to do this is to teach or tutor.

Research Experience

Graduate programs are looking for students who are both capable of and passionate about research. Some graduate schools want to see that you have successfully done and want to continue doing research.

- Some students do one or two summer REUs (Research Experiences for Undergraduates) which are funded by the NSF. As a student you will do mathematical research at a school for 8 to 10 weeks and in return you will receive a small stipend.
- Another good way to get research experience is by doing a senior thesis project, or through independent study. Some small schools require senior theses in all majors, but many big universities do not offer such projects to most students. However, doing a senior thesis gives you an opportunity to learn more about an area of mathematics, do some research, and prove to graduate admissions committees that you are ready for graduate work.

Letters of Recommendation

Your professors in your advanced courses and your REU advisors are the best people to be asking for the three letters of recommendation you will need. You should get to know them well so that they can write quality letters for you. In particular, even if you have no questions about your classes, office hours are a great way to get to know your professor by discussing baseball, or other things you have in common.

Statement of Purpose

As part of the application process you will be asked to write a short essay describing why you wish to pursue graduate studies in mathematics. This essay is a great way to put a personal touch on a very impersonal process. Make sure to explain any unusual circumstances or discrepancies on your application.