

Math 101 — Fall 2017

Class meeting times: Tues/Thurs 10:00-11:30 AM

Instructor: Brooke Ullery

Email: bullery@math.harvard.edu

Office: Science Center 503

Office Hours: Monday and Thursday 2-3

Course website: www.math.harvard.edu/bullery/math101 (grades will be posted on canvas)

Course Assistants: Katie Fraser and Reuben Stern

Emails: kfraser@college.harvard.edu, reuben_stern@college.harvard.edu

Katie's Office Hours: Sunday 2-3 PM in Adams d-hall

Monday 8-9 PM in Lev d-hall (at Math night)

Reuben's Office Hours: Thursday 3:30-4 PM in the 4th floor math lounge

Saturday 1-3 PM in Dunster d-hall

Problem Session: TBD

Math Night: Monday nights 8-10 PM in Leverett dining hall, starting September 11. For more information, go to <http://www.math.harvard.edu/undergrad/mathnight.html>.

Text: I will post course notes on the website approximately each week. There are no required texts for this class, but there are vast resources on these topics available online and in the library. Optional texts include:

- Halmos, *Naive Set Theory*
- Fraleigh, *A First Course in Abstract Algebra*
- Munkres, *Topology*

Possible topics: *Sets:* proof-writing, basic set theory, relations, functions, the Axiom of Choice, Zorn's Lemma; *Groups:* groups and subgroups, quotient groups, symmetry groups, cyclic groups, homomorphisms, group actions; *Topology:* topological spaces, finite spaces, topology of Euclidean space, closed sets and limit points, continuous functions, metric spaces

Homework: Problem sets will be assigned weekly. I encourage you to work on the problems together, but you must turn in your own solutions and list the names of your collaborators.

Exams:

First midterm Thursday, October 5

Second midterm Thursday, November 9

Final take-home exam TBD

Grading:

Homework 40%

Exams 20% each