

# Pure Math and Academia

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November 2, 2022



# Topics

## Introduction

- ▶ Grad School vs. Undergraduate
- ▶ Branches of Pure Math
- ▶ Working in Academia



# About Me

## Introduction

- ▶ UH Undergrad and Master's. PhD at IU
- ▶ 4 years in between Undergrad and Grad school.
  - (I was an older grad student)
- ▶ Currently a Postdoc at (*the*) Ohio State



# Grad School Experience

## Undergraduate

- ▶ Many different subjects
- ▶ Transition to focus on math
- ▶ Some TA and Tutoring jobs
- ▶ Feeling smart

## Graduate

- ▶ Many different math subjects
- ▶ Transition from courses to research
- ▶ Teaching and grading
- ▶ Feeling slightly less smart (and that's ok!)



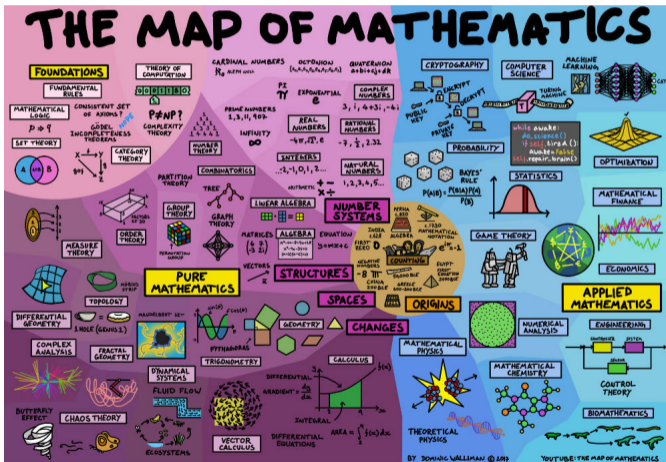
# Teaching

## Grad School Experience

- ▶ Can be stressful
- ▶ Easy to get pigeonholed (into specific courses, or as a teacher in general)
- ▶ Takes a lot of time
- ▶ Can be very rewarding
- ▶ Some teaching experience is necessary for most academic paths

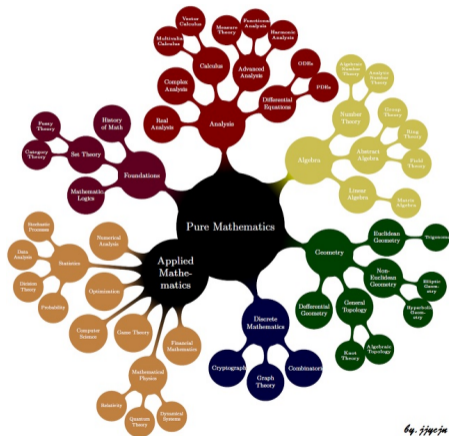


# Branches of Pure Math



- ▶ You can find your own niche
- ▶ It's good to branch out, but it's also good to focus on what you find interesting
- ▶ Graph is not actually planar

# Branches of Pure Math



by jigeja

- ▶ Graph is not actually simply connected
- ▶ All these representations are biased
- ▶ Try to find a subject at the intersection of all your interests



# Challenges

## Working in Academia

- ▶ Lots of competition (not as much choice)
- ▶ Low(er) wages (than in industry)
- ▶ Never not working
- ▶ Long time in school
- ▶ Multiple postdocs?  $\implies$  Moving often
- ▶ 2-body problem?





# Benefits

## Working in Academia

- ▶ Flexible work schedule
- ▶ Travel for conferences
- ▶ Consistent engagement with your favorite branches of pure math
- ▶ Teaching can feel very rewarding
- ▶ The joy of discovering new mathematics



Thanks!

