Supervising Research: Tips and Topics

MAA Panel Presentation
Southern California Section Fall Meeting
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My Experience

- McNair Scholars Program 1996-1999

- Independent Studies/Masters theses

- REU 2001-2002
What is Math Research?

- Problem Solving
- Course Projects/Competitions
- Independent Study
- Independent Solutions to Known Results
- Proving Special Cases of General Problems
- Generalizations/Extensions of Known Results
- Publishable Results
Recruiting Students

- Upper division courses
  1. Assign extra credit
  2. Mention research

- Math clubs

- Give talks for undergrads

- Use the students
Suitable Topics

A problem is suitable if it is easily accessible and has guaranteed partial results.

• Personal Research

• Journal Articles

• Colleagues

• Poster Sessions

• REU websites

• Other websites
Completing Projects

- Regular meetings
- Assignments
- Final paper
- Presentation
Support from Dept

- Tenure/Promotion
- University-wide recognition
- National recognition?
Student Rewards

- Course Credit
- Graduate with Honors
- Financial Rewards
- IT’S FUN
- Intellectually challenging/different
- More job-like than school
- Looks good on a resume
- Improves research skills
- Improves communication skills
- Foreshadowing for grad school