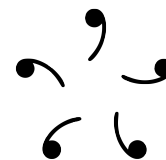


# VCSMS PRIME

Program for Inducing Mathematical Excellence

Syllabus

Carl Joshua Quines



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**Schedule.** Thursday and Friday, 3:30 PM to 5:30 PM at the math lab.

**Homework.** There will be 6 problem sets, due on Wednesdays except the final problem set. These will refer to last year's PRIME problems, which can be found in <http://www.cjquines.com/files/prime.pdf>. All problem sets must be submitted completely. The lowest scoring set will be dropped.

**Late and incomplete policy.** Late problem sets will be given partial credit. If you have an incomplete problem set, you *must* submit the problems you did not solve. Students who do not answer all problems will be marked as incomplete.

**Exams.** There will only be one two-hour final exam, held on session 12, as a mock qualifying stage.

**Grading.** Weekly homework is 50%, the final exam is 30%, and in-class participation is 20%.

**Calendar.** There will be twelve sessions this year, followed by the PMO Qualifying Stage. Session 11 is after exams, for two hours; session 12 is for the whole day. Grades will be given out on session 12.

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| 1. Th, September 14: Angles and areas         | 9. Th, October 12: Coordinates         |
| 2. F, September 15: Functions                 | 10. F, October 13: Polynomials         |
| W1. W, September 20: Week 1 homework due      | W5. W, October 18: Week 5 homework due |
| 3. Th, September 21: Combinatorial principles | * W, October 18: GMATIC                |
| 4. F, September 22: Counting and probability  | * Th–F, October 19–20: Exams           |
| W2. W, September 27: Week 2 homework due      | 11. F, October 20: Number theory       |
| 5. Th, September 28: Trigonometry             | * M–W, October 23–November 1: Sembreak |
| 6. F, September 29: Circles and polygons      | W6. F, October 27: Week 6 homework due |
| W3. W, October 4: Week 3 homework due         | 12. F, October 27: Metasolving         |
| 7. Th, October 5: Sequences and inequalities  | * F, October 27: Final exam            |
| 8. F, October 6: Algebraic manipulation       | * F, October 27: Grades                |
| W4. W, October 11: Week 4 homework due        | * S, October 28: PMO Qualifying Stage  |

## Reminders

- **Some portion of your grade in Mathematics will be your grade in PRIME.** You are expected to work on homework in lieu of some of your activities in math class. In particular, *you will have enough time for homework.*
- You can discuss homework with me or your classmates any time. If you get stuck on a problem, ask.
- Remember to look at our Facebook group for updates!