California State University, Fresno - Spring 2010 CSET III Preparation Workshop Tues 5:30 - 8:30 PM (Room PB 105) & Sat 8:30 AM - 12:30 PM (Room S2 207) Q & A: Tues 5:15 - 5:30 PM (Room PB 105) & Sat 12:30 - 1:30 PM (Room S2 207)

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Course webpage: $http://zimmer.csufresno.edu/ \sim asabuwala/teaching/Spring10/CSETIII$

I expect you to come to class prepared to discuss the current material and homework. If you are absent from class, it is your responsibility to check on announcements made while you were absent and the material covered in class. Contacting me or checking the course website might be good ideas.

Finally, while in class please turn off cell phones, pagers, i-pods, etc.

Tentative class schedule

Sat Jan. 16	Overview of math history in	the California Framework	and Standards; Arithmetic and	Geometry.
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- Tues Jan. 19 | Trigonometry (Ptolemy), Algebra and analytic geometry.
- Sat Jan. 23 Female mathematicians, Calculus.
- Tues Jan. 26 | Trigonometric identities, sum and difference formulas with applications.
- Sat Jan. 30 Applications of trigonometric functions, graphing, solving.
- Tues Feb. 02 | Definition and properties of inverse trigonometric functions, complex numbers, De Moivre's Theorem.
- Sat Feb. 06 Limits and Continuity.
- Tues Feb. 09 | Rules of differentiation of elementary functions, definition of derivative and its interpretation.
- Sat Feb. 13 Rolle's Theorem, Mean Value Theorem, L'Hopital's Rule, applications of derivatives.
- Tues Feb. 16 | Use of the derivative to analyze functions and planar curves, solution of separable differential equations.
- Sat Feb. 20 Definition of a Definite Integral, Interpretation of the Definite Integral.
- Tues Feb. 23 | Applications of Integration: Fundamental Theorem of Calculus, Arc Length, Areas and Volumes.
- Sat Feb. 27 | Applications of Integration (contd.), Sequences and Series: Arithmetic, Geometric Series.
- Tues Mar. 02 | Sequences and Series: Ratio Test, Comparison Test, Integral Test.
- Sat Mar. 06 Sequences and Series: Taylor series, Taylor polynomials.
- Tues Mar. 09 | Question and Answer Session.

This syllabus and schedule are subject to change in the event of extenuating circumstances.