

The exam 1 covers chapters 1 – 3.

- Calculus Review
- Bisection method including the error analysis
- Fixed-point Iteration
- Newton's and Secant methods.
- Order of Convergence
- Lagrange polynomial interpolation
- Natural Cubic Splines

<p>This list of problems is not guaranteed to be a complete review. For a complete review make sure that you know how to do the problems discussed in the class, the homework problems that I mentioned here, and finally, the quizzes.</p>
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1. Please see HW 1: Problems 1-4
2. Please see HW 2: Problems 2 and 3
3. Please see HW 3: Problems 2 and 3
4. Please see HW 4: Problem 1, 2(a), 4, and 6.
5. State the Intermediate Value Theorem, Mean Values Theorem, Taylor's Thm with remainder, and the Fixed-Point Iteration Thm.