This list is not in final form. Like, stuff may yet be added to it.

I believe that our final exam is

Thursday
12/14/06
at 10:30 AM.

Check me on this calculation, somebody.

The final will have questions on the material we have covered lately in sections 17, 18, 19, 32, and 33 (assignments #12 and #13 and ...).
It will also survey the earlier basic material.

4 Stuff to know for the test

(1) Mathematical Induction (PMI), not just in sums, but also in inequalities.
(2) The definition of Convergent Sequence.
(3) The definition of Sequence Divergence to $+\infty$.
(4) Basic MATH-175 sequence-convergence proofs. See, for instance, problem 3 on test #1.
(5) The definition of sup.
(6) The definition of inf.
(7) If $x < \sup(S)$, then there must exist...
(8) The Real-Number LUB axiom.
(9) The Monotone-Sequence Theorem
(10) PMI proofs relating to The Monotone-Sequence Theorem (as in problems 10.9 - 10.12)
(11)
(12) The definition of $\lim \sup(a_n)$.
(13)
(14) The definition of Continuous Function (314) (not to be confused with theorems offering alternative characterizations).
(15) The definition of Continuous Function (170).

(16) Continuous-function properties such as the IVP and properties of functions continuous on a closed and bounded interval.

(17)

(18)

(19) The definition of Partition of an Interval \([a, b]\) with \(-\infty < a < b < +\infty\).

(20) The definition of Upper Darboux Sum.

(21) The definition of Lower Darboux Sum.

(22) The definition of Riemann Sum.

(23) Be able to compute upper and lower Darboux sums and Riemann sums for

(a) Nasty functions like The Characteristic Function of the Rationals and the problem-32.2 function.

(b) Nice functions like \(f(x) = x^2\), \(f(x) = \frac{1}{x}\), or...

(24)

(25) Order of quantifiers in definitions.

(26)

(27)