There will be a review session by the Calculus I tutor on Monday, May 18.

This review session will cover the practice problems found in this directory.

The following Topic list was created by Prof. Cunningham.

Please notice the problems listed.

**Limits**

* Infinite limits -- 1.5 / 29-37
* General limits -- 1.6 / 11-20
* Limits that represent derivatives -- 2.1 / 33-38
* Limits as x approaches infinity -- 3.4 / 9-18

**Derivatives**

* Derivatives of polynomials and trig functions, using chain rule, product rule, etc -- Chapter 2 Review / 13-40
* Derivatives that involve ex or ln(x), using chain rule, product rule, etc -- 6.2 / 31-50, 6.4 / 2-6, 9-16
* Implicit differentiation -- 2.6 / 5-20
* Derivative of an integral using FTC -- 4.3 / 7-18

**Integrals / Antiderivatives**

* Integrals of polynomials and trig functions, using substitution if necessary -- Chapter 4 Review / 9-24
* Integrals that involve ex or ln(x), using substitution if necessary -- 6.2 / 79-90, 6.4 / 71-80
* Finding an antiderivative that satisfies an extra condition -- 3.9 / 27-32
* Estimation of an integral by rectangles (a.k.a. Riemann sums) -- 4.2 / 1-12

**Applications**

* Use the Intermediate Value Theorem to prove that a function has a root -- 1.8 / 51-54
* Related Rates problems -- 2.8 / 1-20
* Use linear approximation to estimate the value of a function -- 2.9 / 23-28
* Use the Mean Value Theorem or Rolle's Theorem to prove that a function does not have 2 or more roots -- 3.2 / 17-19
* Sketch the graph of a function -- 3.5 / 1-30
* Optimization problems -- 3.7 / 11-20
* Find the area between two curves -- 5.1 / 5-28
* Find the volume of a solid -- 5.2 / 1-18