MAT A37: REMARKS ON FINAL EXAM

In preparation for the final, you should be comfortable with the following as a minimum.

(1) Your TA's name, and tutorial number (the cover sheet of the exam is worth 5 points).

(2) Material from earlier in the semester / year, including limits, continuity, suprema and infima, derivatives and differentiability, inverse functions, maxima and minima, the mean value theorem, L'Hôpital's rule, etc.

(3) Integrability: definition of what it means for a function to be integrable on an interval, lower sums and upper sums, evaluating integrals in terms of the definition.

(4) The fundamental theorem of calculus (several different forms; you should know the proofs of these). **You will be asked to prove some form of the FTC on the exam.**

(5) Logarithms, exponentials, inverse trigonometric functions, and their derivatives.

(6) Integration using the FTC: u-substitution, by parts, trig identities, algebraic manipulation, etc.

(7) Taylor series: how to calculate the Taylor series of a given function.