

Topics to Midterm 4

Math 4181H

The exam is on Wednesday, November 19. During the exam you can use books and notes, both paper and electronic. The exam will consist of 4-6 problems related to some of the following topics:

1. Riemann integral, integrable functions.
2. Properties of integral.
3. Mean value theorems for integrals.
4. Integral inequalities.
5. The fundamental theorem of calculus.
6. Integration by parts and substitutions.
7. Improper integrals.
8. The arc-length of a curve.
9. Taylor polynomials, the Taylor-Maclaurin formula.
10. Operations on functions and their Taylor polynomials
11. Taylor polynomials of basic functions.
12. Application of Taylor polynomials.
13. Remainders in Taylor's formula.