

Topics for Calculus BC Tests 2 and 3 on Chapter 9

- 1) Testing Series for Convergence or Divergence
- 2) Power Series
 - a) Finding radius of convergence
 - b) Finding the interval of convergence
 - c) Testing the endpoints
- 3) Taylor and MacClaurin Series

Generating a Taylor or MacClaurin Series using the general formula.

$$\sum_{n=0}^{\infty} \frac{f^n(a)}{n!} (x-a)^n$$

- 4) Error bounds
 - a) Alternating Series Error
 - b) La Grange Error bound for a polynomial of degree n

$$\frac{f^{n+1}(c)}{(n+1)!} (x-a)^{n+1} \quad \text{where } c \text{ is a number between } x \text{ and } a.$$

A cheat sheet is not allowed for the group test. Calculators are allowed but only to calculate decimal answers when instructed to do so.