

SHORT LIST OF THINGS TO KNOW FOR EXAM #3 IN ADDITION TO EXAM #1 AND #2 CONTENT

DEFINITIONS

- (1) Differentiable
- (2) Derivative (at a point)
- (3) Derivative (function)
- (4) Increasing/decreasing function

THEOREMS

- (1) Derivatives and algebra (Theorem 28.1)
- (2) Chain rule (Theorem 28.4)
- (3) Min-Max Theorem
- (4) Mean Value Theorem
- (5) Increasing/decreasing functions and derivatives (Corollary 30.5)

KEY SKILLS

- (1) Applying Boundedness and Extreme Value Theorems
- (2) Evaluating derivatives by definition
- (3) Evaluating derivatives by algebra and chain rule
- (4) Using definition of derivative and Min-Max Theorem to determine when values of f are larger / smaller than others
- (5) Using definition of derivative and mean value theorem to determine increasing / decreasing behavior of functions