

Math 101 (Calculus by James Stewart, 5th edition)
Selected Problems

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|---|--|---|
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| 3.10 | 15, 25, 31, 33, 35, 42 | 19, 22, 32, 36 |
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| 5.5 | 1, 2, 5, 9, 18, 31, 30, 37, 45, 57, 66 | 3, 4, 6, 20, 24, 32, 48, 52, 65 |
| T & F | 1, 2, 3, 7, 8, 9, 12, 13, 14 | 4, 5, 6, 10, |
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* Problems not to be solved but to be illustrated only.

❖ **Basic Definitions:**

- Page 21 : f is increasing (decreasing) on an interval I
 2 page 93 : $\lim_{x \rightarrow a} f(x) = L$
 1 page 102 : f is continuous at a
 2 page 104 : f is continuous on from right (left) at a number a
 3 page 104 : f is continuous on an interval
 2 page 127 : The derivative of a function f at a number a
 1 page 223 : The maximum (minimum) value of a function
 2 page 224 : Local maximum (minimum) of a function
 6 page 227 : Critical number of a function
 Page 300 : An antiderivative of a function

❖ **Theorems:** The statements of the following theorems should be known.

- 10 page 109 : The Intermediate Value Theorem (*I.V.T*)
 Page 234 : Rolle's Theorem
 Page 235 : The Mean Value Theorem (*M.V.T*)
 Page 403 : The Mean Value Theorem for Integrals
 Page 347 : The Fundamental Theorem of Calculus

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|------------------------------|-----------------|-----------------|---|
| <i>First Midterm</i> | : Tues. | 25-03-08 | 5:⁰⁰-6:³⁰ pm |
| <i>Second Midterm</i> | : Mon. | 05-05-08 | 5:⁰⁰-6:³⁰ pm |
| <i>Final Exam</i> | : Thurs. | 05-06-08 | 2:⁰⁰-4:⁰⁰ pm |