

Math 163A Suggested Exercises for Spring 2009

*Sections 1-1 and 1-2 are covered on Exam 1 but are not covered in class.

Section	Title	Suggested Exercises Exercises requiring a calculator are shown in [square brackets].
1-1*	Linear Equations and Inequalities*	11, 21, 23, 25, 33, 34, 35, 36, 39, 41, 65, 67
1-2*	Graphs and Lines*	17, 23, 25, 35ab[cd], 37, 49, 51, 53, 57, 59, 61, 69, 77
2-1	Functions	35, 37, 39, 45, 47, 49, 51, 67, 69, 70, 93, 97, 99, 103, 105, 109
2-2	Elementary Functions: Graphs and Transformations	3, 5, 7, 9, 11, 17, 19, 21, 23, 25, 30, 31, 32, 33, 34, 35, 37, 39, 47, 49, 51, 53, 61, 63a, 65, 67
2-3	Quadratic Functions	9, 13, 15, 19, 21, 23, 25, [31], [41], 45, 47, 51, 52, 57, 59, 61, 63
2-4	Exponential Functions	1, 3, 5, 7, 16, 17, 19, 21, 23, 25, 27, 29, 31, 33, 43, 45, 47, 49, 51, 61, 65, 67, 73, 75
2-5	Logarithmic Functions	2, 3, 5, 9, 11, 13, 15, 17, 19, 21, 23, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 61, 63, [71], [73], [77], 87, [91], [93], [95], 99, 100a[b]cd, [104]
3-1	Introduction to Limits	3, 4, 5, 7, 17, 21, 35, 37, 41, 45, 47, 49, 55, 57, 59, 63, 71
3-2	Continuity	1, 3, 5, 7, 9, 10, 15, 19, 21, 25, 27, 29, 31, 33, 35, 49, 53, 63, 65, 71, 75
3-3	Infinite Limits and Limits at Infinity	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 21, 23, 25, 27, 31, 33, 35, 37, 39, 49, 57, 59, 61, 63, 69
3-4	The Derivative	1, 5, 7, 13, 17, 19, 21, 27, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 45, 46, 57, 59, 61
3-5	Basic Differentiation Properties	1, 3, 7, 9, 11, 15, 17, 23, 25, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 51, 55, 65, 67, 75, 77, 79, 83, 89
3-6	Differentials	1, 3, 7, 11, 13, 15, 19, 21, 37, 41, 43, 45, 47
3-7	Marginal Analysis in Business and Economics	1, 3, 5, 9, 11, 13
4-1	The Constant e and Continuous Compound Interest	[1], [3], [5], [11], [13], [17], [19], [21], [25], [27], [33], [35], [37], [39]
4-2	Derivatives of Exponential and Logarithmic Functions	1, 3, 7, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 51, 53
4-3	Derivatives of Products and Quotients	1, 3, 5, 9, 11, 17, 23, 25, 27, 35, 39, 47, 51, 53, 55, 57, 59, 61, 67, 77, 83, 87
4-4	The Chain Rule	23, 27, 29, 31, 33, 35, 37, 39, 41, 45, 47, 49, 51, 57, 61, 63, 67, 71, 79, 83, 89, 93, [97], [99]
4-5	Implicit Differentiation	3, 7, 9, 13, 17, 19, 25, 29, 31, 43, 47
4-6	Related Rates	1, 3, 7, 9, 11, 13, 17, 19, 21, 31
5-1	First Derivative and Graphs	1, 3, 5, 6, 7, 9, 11, 13, 15, 17, 21, 23, 25, 27, 29, 33, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 77, 79, 91, 101
5-2	Second Derivative and Graphs	1, 3, 5, 7, 9, 11, 13, 15, 16, 18, 19, 21, 25, 29, 31, 33, 37, 45, 51, 55, 59, 61, 71, 73, 79, 81, 89
5-4	Curve Sketching Techniques	1, 3, 5, 7, 9, 11, 15, 17, 21, 23, 24, 25, 43, 57, 59, 65, 75, 83
5-5	Absolute Maxima and Minima	1, 3, 5, 7, 11, 15, 17, 19, 21, 23, 27, 29, 33, 35, 37, 51, 57, 59, 61
5-6	Optimization	1, 3, 5, 7, 9, 11, 13ab, 23, 25, 30, 31, 37