

BARUCH COLLEGE - DEPARTMENT OF MATHEMATICS
MTH 2205 - APPLIED CALCULUS

Text: Gordon,Wang and Materowski: Applied Calculus for Business, Economics, and Finance , First Edition

One of the following graphing calculators **is required**: TI-89, TI-89 Titanium or TI-92 Plus. The TI 83 or TI 84 is **NOT** acceptable.

All Students registered in MTH 2205 are automatically included in two Blackboard sites: (1) their MTH 2205 section site, managed by their instructor and (2) the MTH_2205_ALL site managed by the department. This “ALL” site contains the final exam manual as well as the links to the course and final exam videos. The departmental web site address is: www.baruch.cuny.edu/math/ .

Students should obtain the “Manual for the Uniform Final Examination.” This is available on the course’s MTH_2205_ALL Blackboard site. Hard copies of this manual are available from SACC (Student Academic Consulting Center), located on the second floor of the Vertical Campus. It also appears in pdf format on SACC’s web site, www.baruch.cuny.edu/sacc. Tutoring is available at SAAC, Room 2-116 VC. Faculty office hours, offices and schedules are posted outside the department office as well as on office doors.

All Sections are required to use WebWork, the instructor will decide which of the text and final exam exercises to assign.

Note: Any Practice Final Exam Exercise numbered 26 or higher may be worked out using your calculator.

Sect	Topic	WebWork Module	Text	Practice Final Exam
	Review of Differentiation from MTH 2003	-----	P.178: 30, 37; P.185: 4, 13, 27,31; P.199:17,24 P.214: 5,8 P.221: 9,10,21,28; P.235: 14, 18	
3.1	Extrema of a Function of a Single Variable	XFS	1, 3, 5, 6, 7, 11, 24, 15, 17, 18, 20, 21, 22, 25, 30, 32, 33, 34, 35, 36, 39, 40	A1, A19, B1, B19, B25, C1, C18, D1, D12, D19, D25, E1, E12, E13, A26, B26, C26, D34, E26
3.2	First Derivative Test	FDT	3, 5, 7, 8, 10, 11, 12, 13, 14, 18, 19, 20, 23, 25, 26, 27, 29, 32, 35, 38, 39, 40, 42, 43, 45	A2, B2, C2, D2, E2
3.3	Concavity and the Second Derivative Test	CSD	1, 2, 3, 4, 11, 13, 14, 15, 16, 17, 18, 19, 25, 27, 31, 33, 37, 38, 41, 44, 49, 51, 67, 68, 69,71, 76	A3, A6, A20, B3, B20, C3, C19, D3, D13, D20, E3, E4, E20, E23, A27, A34, B27, C27, D26, E34
3.4	Applications I - Geometric Optimization	AGO	1, 2, 3, 5, 7, 8, 9, 13, 14, 17, 19, 20, 21, 23,26, 30	A4, B4, C4, C20, D4, E19
3.5	Applications II - Business and Economic Optimization	ABE	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, 18	A5, A21, B5, B21, C7, C21, D5, D14, D21, E5, E14, E21, E24, B28
3.6	Linearization and Differentials	LaD	1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 19, 20, 21, 23, 24,28, 29	A22, B6, B22, C6, C22, D6, D15, D22, E6, E15, A28, B29, C28, D27, D28, E35
4.1	Inverse Functions	InF	1, 5, 7, 9, 11, 15, 17, 19, 21, 24, 25, 29, 31, 35, 39, 42,43, 46, 48, 49, 51, 54, 56, 59, 61, 63, 64, 66 67, 68, 69, 71, 72	A7, B7, C5

4.2	Exponential Functions	ExF	1, 2, 4, 5, 7, 10, 11, 13, 17, 18, 23, 25, 26, 27, 36, 37, 41, 43, 44, 45, 49, 51, 53, 55, 58, 59, 61, 63, 67, 68	A8, B8, C8
4.3	e	Exp	1, 2, 3, 7, 8, 10, 11, 12, 13, 15, 17, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33	A9, B9, C9, A29, C29, D33, E27
4.4	Derivative of Exponential Functions	DEF	1, 3, 4, 5, 8, 9, 11, 12, 14, 15, 17, 18, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 33	A10, A23, B10, B23, C10, C23, D7, D16, E7, A30, A33, B35, C30, D29, E28, E29
4.5	Logarithmic Functions	Log	1, 3, 4, 6, 7, 9, 10, 13, 15, 16, 17, 19, 21, 23, 25, 27, 29, 32, 34, 37, 39, 45, 47, 49, 53, 54, 55, 59, 61, 64, 65	A11, B11, C11, E8, E16, D30, E30
4.6	Properties of Logarithmic Functions	PLF	1, 5, 7, 11, 15, 17, 19, 21, 23, 25, 29, 31, 35, 37, 39, 41, 45, 53, 57, 61, 65, 67, 68, 69, 73, 77, 79, 81, 82, 87, 89, 92, 96, 97, 99, 101, 102, 104, 105	A12, A24, B12, B24, C12, C24, D8, D17, D23, E9, E17, E22, E25, A31, B30, B34, C31, D31, D32, E31
4.7	Applications	Apl	1, 2, 3, 4, 5, 6, 7, 8, 17, 18, 21, 37, 39	B31, B33, C33, D35, E32
5.1	Antiderivatives	ADe	1, 3, 4, 5, 7, 8, 11, 12, 14, 17, 19, 22, 25, 26, 29, 31, 32, 33, 35	See next assignment
5.2	Applications of Antiderivatives	AAD	1, 3, 5, 6, 8, 11, 15, 16, 18, 21, 23, 25, 27, 28, 29, 30, 31, 33, 34, 35	A13, B13, C13, D9, E10
5.3	Substitution*	Su1	1, 3, 4, 7, 8, 9, 11, 12, 14, 15, 17, 19, 21, 25, 27, 29, 33, 35, 37, 38	A14, B14
5.4	Approximation of Areas	ArA	1, 3, 5, 6, 9, 10, 13, 16, 18, 20, 23, 27, 28, 30, 32	A15, A31, C32, E33
5.5	Sigma Notation and Area	SNA	1, 3, 9, 11, 12, 15, 17, 18, 19, 20, 21, 23, 26, 27, 28, 29, 31, 35, 36, 40, 41, 42, 43	B15, C14, A35, B32, C34
5.6	Definite Integral	DeI	1, 5, 7, 9, 11, 15, 19, 21, 23, 24, 25, 27, 31, 39, 41, 42, 45, 47, 51, 57, 61, 62, 63	A16, B16, C15, D10
5.7	Substitution*	Su2	3, 7, 8, 9, 11, 15, 18, 20, 21, 23, 26, 28, 31, 33, 34, 36, 38, 39	A17, A25, B17, C16, C25, D11, D18, E11, E18
5.8	Applications	Ap2	1, 2, 4, 5, 7, 8, 15, 16, 17, 18, 19, 21, 23, 37, 39, 40, 41	A18, B18, C17, A32, C35

*In sections 5.3 and 5.7, students are expected to do *basic* substitutions both with and without the calculator.