

**Exercises for Fall 2023 MATH 2301 MATH 2301 Sections 100 and 110 (Barsamian)**

**(from Stewart Essential Calculus Early Transcendentals 2<sup>nd</sup> Edition)**

**Your goal should be to write solutions to all of the 333 exercises in this table.**

Section	Exercises																	Total
1.3 The Limit of a Function	1	5	7	10	11	12	13	15	23	33	39							11
1.4 Calculating Limits	5	7	10	11	17	21	23	25	27	31	33	35	38	42	49	51	55	17
1.5 Continuity	3	5	7	17	19	27	33	39	43	47								10
1.6 Limits Involving Infinity	1	5	7	9	10	13	19	21	25	29	33	35	40	41	45	49		16
2.1 Derivatives & Rates of Change	1	5	9	11	15	16	18	25	27	29	31	33	35	43	47			15
2.2 The Derivative as a Function	1	3	5	9	11	13	19	20	22	23	25	33	35	39				14
2.3 Basic Differentiation Formulas	1	7	9	11	13	19	27	29	31	33	35	37	39	45	50	57	69	17
2.4 The Product & Quotient Rules	3	5	7	13	16	17	19	21	26	27	31	34	37	41	51	55		16
2.5 The Chain Rule	1	7	13	14	17	21	25	35	43	47	51	55	63	64				14
2.6 Implicit Differentiation	5	7	9	11	13	19	21											7
2.7 Related Rates	4	5	11	13	15	20	23	25	27	28	31							11
2.8 Linear Approx & Differentials	1	5	6	11	13	17	19	21	23									9
3.1 Exponential Functions	1	5	7	9	13	15	16	17	27	29	30							11
3.2 Inverse Functions, Logarithms	5	7	9	11	15	17	18	22	23	25	35	36	39	67	71	76		16
3.3 Derivs of Log. & Exp. Functs.	1	3	4	6	13	20	26	31	35	41	45	55	57					13
3.4 Exponential Growth & Decay	1	2	3	9	13	16												6
4.1 Maximum & Minimum Values	5	9	18	19	21	25	29	35	39	43	47	49						12
4.2 The Mean Value Theorem	1	3	5	7	9	11	13	15	17	23	25							11
4.3 Derivs. & Shapes of Graphs	1	5	7	10	13	15	19	23	27	35	37	45						12
4.4 Curve Sketching	1	9	11	13	15	19	31	34	39									9
4.5 Optimization Problems	2	7	11	15	17	22	25	30	37	39	53	57						12
4.6 Newton's Method	4	7	9	11	13													5
4.7 Antiderivatives	1	2	7	12	13	15	20	27	38	40	47	53	55					13
5.1 Areas and Distances	2	3	4	5	9	13	16	18										8
5.2 The Definite Integral	1	3	9	11	15	25	30	33	35	39	40	44						12
5.3 Evaluating Definite Integrals	3	7	11	18	26	29	49	51	56	59	61	65	69					13
5.4 The Fund. Thm. of Calculus	1	3	5	10	15	25	27											7
5.5 The Substitution Rule	7	11	13	17	19	23	26	27	33	37	39	44	50	53	55	61		16
Total Number of Exercises From All Sections:																	333	

**A Suggestion for Studying:** Even though WebAssign does not require that you write stuff down, you will learn a lot by focusing on your writing. Furthermore, having good writing skills will really help when working on a written Quiz or Exam. Therefore, you should write down a complete solution to each problem *before* you type the answer into the answer box in WebAssign. Focus on the clarity and correctness of your written solution. Keep your written work organized in a notebook. Compare your written solutions to my written solutions in lectures. Find another student, or a tutor, or the Recitation Instructor, or Mark Barsamian, to look over your written work with you.