

Calculus I	Homework Exercises
1.3 The Basic Classes of Functions (pages 21 – 23)	P. 24: 3, 4, 7, 8, 27--33 odd
1.4 Trigonometric Functions (pages 25 – 31)	P. 31: 1, 6--9, 15, 19, 25, 27
1.5 Inverse Functions (pages 33 – 41)	P. 41: 1, 4, 5, 23, 24, 27--33 odd, 39, 43
2.1 Limits, Rates of Change, and Tangent Lines (pages 59 – 64)	P. 64: 1, 5, 12, 15, 17
2.2 Limits: A Numerical and Graphical Approach (pages 67 – 74)	P. 74: 1, 5, 6, 17, 21, 23, 25, 27, 33, 35, 38
2.3 Basic Limit Laws (pages 77 – 79)	P. 80: 1, 3, 5, 9, 15, 17, 19, 21, 31
2.4 Limits and Continuity (pages 81 – 87)	P. 88: 17, 18, 24--26, 29, 33--41 odd, 47, 67--79 odd
2.5 Evaluating Limits Algebraically (pages 90 – 94)	P. 94: 1, 7, 13, 15, 17, 21, 27, 31, 47, 51
2.6 Trigonometric Limits (pages 95 – 98)	P. 98: 17--25 odd, 29--39 odd
3.1 Definition of the Derivative (pages 120 – 125)	P. 125: 3--6, 27--29, 33--39 odd, 42, 43, 49
3.2 The Derivative as a Function (pages 129 – 138)	P. 139: 7--31 odd, 35--43 odd, 50, 51, 53, 60, 67
3.3 The Product and Quotient Rules (pages 143 – 147)	P. 147: 1--11 odd, 17--35 odd, 49, 50
3.4 Rates of Change (pages 150 – 155)	P. 156: 1--7, 20, 31
3.5 Higher Derivatives (pages 159 – 162)	P. 163: 1--19 odd, 22, 24--26, 28, 39, 40
3.6 Trigonometric Functions (pages 165 – 167)	P. 167: 1--33 odd, 39--43, 45, 52
3.7 The Chain Rule (pages 169 – 174)	P. 175: 1--8, 11--25 odd, 29--35 odd, 43--51 odd, 73, 74
3.8 Derivatives of Inverse Functions (pages 178 – 180)	P. 181: 19, 21, 23--25, 27--29, 31--34, 36
1.6 Exponential and Logarithmic Functions (pages 43 – 50)	P. 50: 13, 22, 23, 27--33, 37
3.9 Derivatives of General Exponential and Logarithmic Functions (pages 182 – 187)	P. 187: 1--19 odd, 25--31 odd, 39--44, 45--49 odd, 50

3.10 Implicit Differentiation (pages 188 – 192)	P. 192: 1, 2, 9--25 odd, 29--37 odd, 38, 41
3.11 Related Rates (pages 195 – 199)	P. 199: 1, 2, 3, 5--8, 16, 17, 18, 33, 39 P. 205: 118
4.1 Linear Approximation and Applications (pages 207 – 212)	P. 213: 17, 21, 23, 45--51 odd, 59--65 odd
4.2 Extreme Values (pages 215 – 221)	P. 222: 3, 5, 9, 10, 15, 23, 29, 33, 37, 39, 53, 55
4.3 The Mean Value Theorem and Monotonicity (pages 226 – 231)	P. 232: 11, 14, 15--21 odd, 27--31 odd, 37, 43--47 odd
4.4 The Shape of a Graph (pages 234 – 238)	P. 238: 3--9 odd, 25, 27, 35, 39, 40, 45, 47, 50, 52
2.7 Limits at Infinity (pages 100 – 104)	P. 105: 7--29 odd, 38, 41
4.5 Indeterminate Forms and L'Hôpital's Rule (pages 241 – 246)	P. 246: 1--7 odd, 11--29 odd, 39--43 odd, 49, 51
4.6 Graph Sketching and Asymptotes (pages 248 – 254)	P. 255: 8, 13, 17, 29, 33, 41, 43, 53--59 odd
4.7 Applied Optimization (pages 257 – 262)	P. 262: 1--4, 6, 8--12, 14, 15, 17, 22, 27
4.9 Antiderivatives (pages 275 – 280)	P. 280: 1, 2, 3--7 odd, 13--19 odd, 25, 27, 43, 44, 49, 50, 55, 59, 65--69 odd
5.2 The Definite Integral (pages 299 – 306)	P. 307: 1--5 all, 7, 13--16 all
5.3 The Fundamental Theorem of Calculus, Part I (pages 309 – 313)	P. 314: 5, 7, 9, 10, 13--25 odd, 30, 33, 37, 38, 42
5.4 The Fundamental Theorem of Calculus, Part II (pages 316 – 319)	P. 319: 3, 7--13 odd, 14, 16, 21, 31, 32, 46
5.5 Net Change as the Integral of a Rate (pages 322 – 325)	P. 326: 1, 5, 8--12 all