Math 112 Homework – Spring 2017

Section	<u>Problems</u>
	Work odd problems only unless otherwise stated.
	Problem in red are also located in WebAssign
5.5 The Substitution Rule	1-9, 11, 13, 15, 17-25, 27-33, 35, 39, 41, 43, 45, 47, 49, 51, 53-
	59 , 61, 63-71 , 73, 75, 77
6.1 Areas Between Curves	1-5, 7, 9-21, 23, 25, 27, 33, 49, 53
6.2 Volumes	3, 5, 9-15, 17, 21, 22, 25, 26, 29, 30, 43, 47-51, 63
6.3 Volumes by Cylindrical Shells	OMIT
6.4 Work	2, 3-17, 21, 23, 24, 25, 26
6.5 Average Value of a Function	3-11, 13, 15, 21 ($t = 0$ is year 1950)
7.1 Integration by Parts	1, 2, 3-11, 13, 15-21, 23, 27, 29, 31, 33, 35, 37, 39, 41, 57, 65, 71
7.2 Trigonometric Integrals	1, 3, 5, 7, 9, 11, 13-17, 19-43, 45, 47
7.3 Trigonometric Substitution	1, 3, 5, 7, 9, 11, 13, 14, 15, 17-21, 23, 25, 27, 29, 37
7.4 Integration of Rational Functions by	1-7, 9-13, 15, 17, 19, 21, 23, 25, 27, 29-33, 37-49, 51
Partial Fraction Decomposition	
7.5 Strategy for Integration	1-7, 9, 11, 13, 15, 17, 19-23, 25, 27, 31, 33, 35, 37-51, 55, 57,
761.4 1646	59, 61, 63-67 , 69, 71 , 73, 75, 77 , 81
7.6 Integration using Tables and CAS	OMIT
7.7 Approximate Integration 7.8 Improper Integrals	1, 5, 7, 19, 21, 30, 31 1-17, 19, 21-25, 27, 29-35, 37, 39, 49-57, 61
8.1 Arc Length	7-17, 35, 37
8.2 Area of a Surface of Revolution	OMIT
8.3 Applications to Physics and Engineering	1, 2, 3, 4, 5, 6, 7, 8, 9, 11-15 all, 17(a-c)
8.4 Applications to Economics and Biology	COVERED IN LAB
8.5 Probability	OMIT
9.1 Modeling with Differential Equations	1, 3-13
9.2 Directions Fields	1, 3, 4, 5, 6, 7, 11
9.3 Separable Equations	1, 3-9, 11-19, 29, 31, 39, 45, 47, 48
9.4 Models for Population Growth	1, 9, 11
9.5 Linear Equations	OMIT
11.1 Sequences	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 25, 27, 29, 31,
	33-37, 39, 41-49, 51, 53, 55, 73, 75, 77
11.2 Series	1, 3, 5, 15-19, 21, 23, 25, 27, 29, 31, 33, 35, 37-47, 48, 51, 53,
	55, 57, 59, 69
11.3 The Integral Test and Estimate of Sums	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 37
11.4 The Comparison Tests	1, 3, 5-9, 11, 13, 15-19, 21, 23, 25, 27-31
11.5 Alternating Series	1-13, 15, 23
11.6 Absolute Convergence and Ratio and Root Tests	1-9, 11, 13, 15, 17, 21, 23, 25, 27, 31, 33, 35, 37, 43
11.7 Strategy for Testing Series (determine absolute convergence, conditional	1-7, 9, 11-17, 19, 21, 23-33, 35, 37
convergence or divergence)	
11.8 Power Series	1-9, 11, 13, 15-19, 23, 25, 29
11.9 Representations of Functions as Power	1, 3-7, 9, 13-17, 23-27, 29
Series	-,-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
11.10 Taylor and Maclaurin Series	1, 3, 5-9, 11, 13, 15, 19, 21-25, 35-39, 55
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