Math 152 Homework Questions List

From Calculus: Early Transcendentals, 8^{th} ed. by James Stewart

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Week 1

Section 4.9: # 1 - 17 (odd), 25, 41, 49, 59, 77

Section 5.4: # 5, 9, 11, 15, 17

Section 5.1: # 3, 5 + review Sigma Notations (see .pdf in the Preliminaries folder in Moodle)

Week 2

Section 5.2: # 1, 3, 9, 19, 29, 33, 35, 37, 39, 41, 47, 49, 53

Section 5.3: # 9, 11, 13, 15, 19, 27, 29, 31, 37, 39, 41, 43, 59, 65

Section 5.4: # 23 - 45 (odd)

Section 5.4 (Part 2): # 59, 61

Section 5.5: # 1 - 35 (odd), 39, 41, 45, 47,53 - 59 (odd), 63 - 73 (odd), 87, 91

Week 3

Section 6.1: # 1 -13 (odd), 17, 19, 25, 27, 33, 57

Section 6.2 (Part 1): #1, 3, 5, 51, 57

Section 6.2 (Part 2): # 7, 9, 11, 15, 17, 19 - 29 (odd)

Week 4

Section 6.3: # 7, 9, 13, 15, 17, 19, 37, 43 (If you do not have the student solutions manual, which gives full solutions to each exercise, (the back of the textbook gives the final answer only) and you want to check that your integral is correct before calculating the integral, go to WolframAlpha.com. Input your integral and see if the answer matches with the answer in the back of the book before you evaluate the integral to save time.)

Section 7.1: # 1, 3, 9, 11, 13, 15, 17, 19, 27, 31, 33, 39, 41, 61, 63

Section 7.2: # 1 - 15 (odd), 61, 63 (for #61 and 63: draw the regions)

Section 7.3: # 1, 11, 15, 21, 29

Section 7.5: # 1, 3, 7, 17 - 27 (odd), 31, 33, 41, 43, 45, 47, 57, 61, 65, 67, 71, 73, 75

Week 6

Section 7.4: # 1, 3, 5, 9 - 15 (odd), 19, 21, 25, 39 (note: if using the Partial Fractions method, always check first that the integrand is proper before decomposing!)

Section 7.5: # 9, 59

Section 7.7 (Optional): # 1, 5, 11 You will not be tested on applying (i.e. using the formulas of) the Trapezoidal or the SimpsonÕs Rule. However, you will be tested on roughly how these rules work and how good of approximations they produce in comparison to each other.

Section 7.8: # 1, 5, 7, 9, 13 - 21 (odd), 25 - 39 (odd)

Week 7

Section 11.1: # 1, 5, 17, 23 - 35 (odd), 39, 41, 43, 45, 47, 49, 51, 71, 73, 75

Section 11.2: # 1, 3, 15, 17, 21, 23, 25, 27, 29 - 39 (odd), 43, 45, 57 - 63 (odd), 75

Week 8

Section 11.3: # 3, 5, 7, 21 - 27 (odd), 29, 35a, 37ad

Section 11.4: # 1 - 27 (odd), 31

Section 11.5: # 3 - 17 (odd), 23, 25, 27, 33

Week 9

Section 11.6: # 1 - 19 (odd), 23, 25, 27, 31, 33, 35, 37, 43, 45

Section 11.7: # 1, 5 - 25 (odd), 31, 33, 37

Section 11.8: # 1, 3, 5, 7, 11 - 29 (odd), 33

Week 11

Section 11.9: # 1 - 19 (odd), 25, 27, 39

Section 11.10: # 3, 5, 7, 9, 13, 15, 19, 21, 23, 25, 37, 39, 73 (hint for 73: Use the Maclaurin series for e^x), 75, 77, 79

Section 11.11: # [3, 5, 7, 9] $\leftarrow$ skip graphing, 13ab, 15ab, 19ab + Review sections 10.1 and 10.3 (it is enough to review the material for these sections in this lecture book)

Section 10.1 (review): # 1, 5, 9, 11, 13, 15, 25, 27

Section 10.3 (review): # 29, 31, 33, 39, 41, 47

Week 12

Section 8.1: # 3 - 19 (odd) (hint for #15: to evaluate the integral, multiply the numerator and the denominator by $(\sec x + \tan x)$ then use substitution $u =$

$\sec x + \tan x$...)

Section 8.2: # 1a, 3a, 5a, 7, 9, 13 - 17 (odd)

Section 10.2: # 41, 43, 61

Section 10.4: # 1,3,5(use $\theta \in [0, \pi/2]$),17(use $\theta \in [-\pi/6, \pi/6]$),19(use $\theta \in [0, \pi/4]$), 45, 47

Week 13

Section 9.1: # 1, 3, 7ab

Section 9.2: # 1a, 3, 5, 7 (for 1a and 7: no need to copy the given direction fields - just sketch the curve)

Section 9.3: # 1, 3, 5, 9 - 19 (odd), 45, 47 (hint: let $y(t)$ be the amount of alcohol in the vat in **gallons**).

Section 9.4: # 5 (derive the solution by using the Separation of Variables method), 21a + Chapter 9 Review on Page 635 #15