Math 265B : Homework Set 1

Please note that this homework sheet is a translation sheet between the 1st and 3rd editions of the Briggs Calculus text. The color-coded blocks show the same problems across the different editions. An asterisk indicates that there is not an identical match in the 3rd edition and the problem assigned is your equivalent replacement.

(Thanks go to Shelby Burnett for aligning the homework problems from the two editions of the textbook!)

Even Answers: Use Wolfram Alpha where possible (as shown in class) to check your answers.

Math 265A Review: Antiderivatives, Definite Integrals, Riemann Sums, and Area	**1st Edition 265A Review** p.322 1c, 4, 39, 48, 49, 69, 71 – 79 all p. 387 7a, 15, 21, 31, 38 **3rd Edition 265A review** p.334 1c, 4, 61, 70, 71, 91 – 101* all p. 398 9a, 39, 43, 87, 16
Math 265A Review: Substitution	**1st Edition Section 5.5 pg. 383** 1, 3, 5, 6, 17, 23, 33, 35, 37, 41, 43, 45, 53, 54, 57, 71, 79, 81, 93 **3rd Edition Section 5.5 pg. 395** 1, 3, 5, 6, 17, 23, 79, 81, 83, 51, 55, 57, 87, 88, 91, 67, 97, 98, 105
Substitution	**1st Edition Section 7.1 pg. 506** 11, 13, 25, 27 **3rd Edition Section 8.1 pg. 523** 11, 13, 25, 27
Regions Between Curves	1st Edition Section 6.2 pg. 408 1, 3, 5 – 17 odd, 25, 27, 29, 31 39, 53, 57 **3rd Edition Section 6.2 pg. 420** 1*, 3*, 9, 13, 37- 43 odd 21*, 27*, 19, 31*, 65, 63, 69
Volumes by Slicing	**1st Edition Section 6.3 pg. 419** 1,7, 8, 9, 10, 12 (Give the Riemann sum approximating the volume on #7 and #12 before setting up the integral.) 18, 19, 20, 25, 27, 29, 31, 34, 35, 36, 37, 39, 43, 47, 49, 51, 54, 58 **3rd Edition Section 6.3 pg. 434** 1,12, 11, 13, 16 (Give the Riemann sum approximating the volume on #12 and #16 before setting up the integral.) On the following problems, just a reminder to use the **disk/washer method** after revolving around the indicated axis**:** 18, 19, 6c*, 21*, 23, 25, 38*, 36, 28, 22, 27, 21*, 47, 39, 41, 51, 64, 70
Volumes by Shells	**1st Edition Section 6.4 pg. 432** On the following problems follow indicated directions but do 15 with shells and disks to compare methods: 2,3, 5, 6, 9, 13, 15, 17, 20, 21, 23 (use technology), 24(use technology), Set up the integral but don't integrate (unless you want to) on the following: 33 – 45 odd, 53, 55, 58, 60 **3rd Edition Section 6.4 pg. 447** On the following problems follow indicated directions but do 13 with shells and disks to compare methods: 2, 3, 9, 12, 11, 17, 13, 15 , 20*, 21, 27, 28 Set up the integral but don't integrate (unless you want to) on the following: 35 – 47 odd, 29, 55, 58, 60
Length of Curves	**1st Edition Section 6.5 pg. 440** 3, 5, 7, 13, 17, 25bc, 27, 28, 29, 31 **3rd Edition Section 6.5 pg. 455** 9*, 11, 13, 23, 27, 39bc, 35, 36, 37, 31
Physical Applications	**1st Edition Section 6.7 pg. 458** Set up integrals by hand and you may use technology to integrate: 5, 9, 11, 13, 17, 18, 27-32 all **3rd Edition Section 6.7 pg. 473** Set up integrals by hand and you may use technology to integrate: 5, 13, 15, 17, 21, 22, 35-39, 62