

Here are some additional problems from Professor Cao that you might want to review for test 3.

Question 1, The substitute rule (Section 5.5, formulae on p357, p359, HW p362, #11, 24, 30, 45, 62, ).

Question 2, Integrals of symmetric functions (Section 5.5, Theorem 6 on p360, HW p362, #46, 48).

Question 3, Solve differential equations (Section 5.4, HW p354, #55, #56).

Question 4, Definite integrals of power functions (Section 5.4, HW p353 #23, 40).

Question 5, Definite integrals of  $|f(x) - g(x)|$ , (Section 6.1, p374-375, Example 5, HW p377, #15, 16, p353, #42).

Question 6, What is the Riemann sum? How to pick up right-hand endpoint of each subinterval ? (Section 5.2, p324-325, p327-328, Example 2, HW p335, #17, 21, 24).

Question 7, How can we solve an equation using Newton's method ?(Section 4.9, p294, HW p297, #6, 11)

Question 8, Optimal problems (Section 4.7, p277-278, Example 1, p280, Example 3, HW p282, #9, 18).