

Calculus 1A: Homework Assignments. Notes and Hints.

Revised 1/19/09

Spring 2009, TT 3:30pm - 5:00pm, Room 105 Stanley Hall

Instructor: Professor Zvezdelina Stankova

HW13. Read §5.3-5.4. Solve and Write Problems:

- (1) §5.3: #4,6,8,10,18,24,26,28,32,40,42,44,52,58*,66,72,76*.
 - (a) #24,28,40: use the old trick of writing the function as a power of x : x^a where a could be a fraction, even a negative fraction. In #40-42: if it is difficult for you to find the antiderivative of the whole function, split the integral into a sum of two integrals of simpler functions.
 - (b) #18: use the "generalized" FTC from lecture (e.g., using upper function $h_2(x)$ and lower function $h_1(x)$).
 - (c) #58: you need to use FTC II and your knowledge of what it means for a function to be concave upward.
 - (d) #66: recognize this Riemann sum as the integral of some function (which function, and on what interval?), then use FTC to calculate this integral. Compare with #65.
- (2) §5.4: #2,4,26,30,34,42,44,52,54,58,62.
 - (a) #26-42: perform some algebraic manipulation first to get the function into a more suitable form for integration, and then integrate (i.e., find an antiderivative).
 - (b) #52-62: you have to set up an integral, and then, if the problem is asking, to evaluate this integral.