

A. Due at the start of class on Day 8 (but not collected): Complete these exercises, just to practice basic skills. If you want more practice, then do more problems from the book.

Section 14.1 Exercises 4, 6, 14, 19, 20, 26, 29, 37, 39, 42, 44-47

B. Due on Day 9, as part of your weekly homework packet: Submit polished solutions, including all necessary work and no unnecessary work, in the order assigned.

1. How a person perceives the temperature of the air around her is influenced not just by the air's actual temperature but also by the humidity (because humidity affects her ability to dissipate heat through perspiration). Here is a table of temperature x (in Fahrenheit) and humidity y (in %) versus perceived temperature z (in Fahrenheit). Make a contour plot of z as a function of x and y , on the relevant part of the x - y -plane. Your z -contours should be spaced 10 apart, from $z = 80$ to $z = 140$. Also make a 3D graph of the function, in the style of Figures 20-22 in Section 14.1.

	$y = 20$	30	40	50	60	70
$x = 80$	77	78	79	81	82	83
85	82	84	86	88	90	93
90	87	90	93	96	100	106
95	93	96	101	107	114	124
100	99	104	110	120	132	144

2. Section 14.1 Exercise 56. (By the way, do you know how to integrate this function with respect to x , regarding t as a constant? Think about that, but don't hand it in.)