

Assignment #10 – MATH 2421
Summer 2008

Harder

Name: _____

- Due on Monday, 7 July 2008 at 10:30 a.m.
- Attach this cover sheet to this assignment.
- Copy all of your work onto engineering pad paper!
- Give enough details about each problem so that I should NOT need to refer back to the text.

Section 11.1

(I) Complete Problem #13 on p. 934.

(II) Complete Problem #14 on p. 934. [What power is $x\sqrt{x}$?]

(III) Complete Problems #23 & #24 on p. 934.

(IV) Complete Problem #27 on p. 934.

(V) Complete Problem #29 on p. 934.

Give a brief explanation, in terms of trapped volume, why one of these double integrals is larger than the other.

(VI) Complete Problem #32 & 37 on p. 934. The first region is rectangular. The second is triangular.

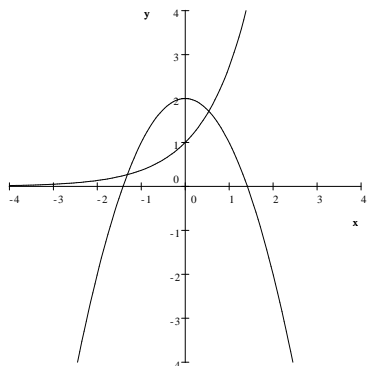
(VII) Complete Problem #34 on p. 934. The region of integration is located in Quadrants I & II.

(VIII) Complete Problem #40 on p. 935.

You will need TWO numerical solutions to

$$e^x = 2 - x^2.$$

Which order of integration makes sense for this problem: $dy dx$ OR $dx dy$?



MORE PROBLEMS ON THE OTHER SIDE!

- (IX) Complete Problems #45 & #48 on p. 935. Be sure to make sketches of the boundary curves for both regions.
- (X) Complete Problem #64 on p. 935.