

Math 4410 Advanced Calculus II

Review for Exam 3, which will be on Wednesday, April 12.

In class portion:

1. Definitions to memorize:
 - a. inverse function
 - b. image
 - c. inverse image (preimage)
 - d. positive definite matrix
 - e. $I \times J$
 - f. level set (level curve)
 - g. Hessian
 - h. critical point (multi-dimension)
 - i. convex set
 - j. convex function
2. Theorems for knowing the basic idea:
 - a. Inverse Function Theorem (pg 347)
 - b. Implicit Function Theorem (pg 360)
3. Hw 22 #3
4. Hw 23 #4
5. Hw 24 #6
6. 12.2 #1,4a

Take home portion:

7. Hw 24 #4
8. Hw 26 #4
9. 12.1 #1ab,2cd,3a,7a