

Math2210 Midterm 3 Review Problems

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The exam covers sections 12.9, 13.1-13.4, 13.6-13.9 and 14.1. You will NOT need a calculator for this exam. You can bring one 8.5x11 inch sheet of paper of notes (on both sides, if you want) to use as a reference. No electronics of any sort allowed on the exam.

Topics

- Lagrange Multipliers
- Double Integrals
 - Cartesian coordinates
 - Polar coordinates
 - Area
 - change of variables (Jacobian)
- Triple Integrals
 - Cartesian coordinates
 - Cylindrical coordinates
 - Spherical coordinates
 - change of variables (Jacobian)
- Volume
- Surface Area
- Vector Fields
 - Divergence
 - Curl

Review Questions to do for practice:

Chapter 12 Review (pg 672-673)
Sample Test Problems #27-29

Chapter 13 Review (pg 728-729)
Concepts Test Problems #1-5 all, 11, 13, 14, 16, 17
Sample Test Problems #1-12 all, 15, 16, 20, 21

Chapter 14 Review (pg 773-774)
Concepts Test Problems #2, 4
Sample Test Problems #1-3