

Math2210 Midterm 3 Review Problems

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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

Sample Test Problems #1-7 all

The exam covers sections 13.3-13.4, 13.6-13.9, 14.1 -14.3. You will NOT need a calculator for this exam.

You can bring one 8.5 x 5.5 inch piece of paper of notes (on both sides, if you want) to use as a reference.

Topics

- Double Integrals
 - Cartesian coordinates
 - Polar coordinates
 - Area
- Triple Integrals
 - Cartesian coordinates
 - Cylindrical coordinates
 - Spherical coordinates
 - change of variables
- Volume
- Surface Area
- Vector fields
 - divergence
 - curl
- Line Integrals
 - Path independence/conservative vector fields
 - fundamental theorem of line integrals
 - Finding f such that $\mathbf{F} = \nabla f$