

Topics for Midterm: Brief Outline
Math 274
May 1, 2008

- I. Tensor product, wedge product, determinant.
- II. Open, closed, compact sets in \mathbb{R}^n .
- III. Derivatives for $\mathbb{R}^k \supset U \xrightarrow{f} \mathbb{R}^n$.
 - Chain Rule
 - Inverse Function Theorem
 - Implicit Function Theorem
- IV. Integration
 - Partitions of unity
 - Change of variables theorem
 - Volumes of parallelepipeds