

MATH 429 – Fall 2005
Review sheet for Midterm Exam 1

Concepts to be known

- Topological spaces
- The discrete topology, the indiscrete topology
- The standard topology and the lower limit topology on \mathbb{R} .
- The metric topology
- Topological bases
- The subspace topology
- The product topology, the box topology
- The order topology
- Limit points
- Closure and interior of a set
- Hausdorff spaces
- Continuity on topological spaces
- Topological embeddings
- Homeomorphisms
- Connected spaces

Theorems to be known

All theorems from Chapter 2 and Chapter 3 (only Section 23).

Note: You will be asked to state three definitions.