

MATH 2210: ON THEOREMS AND THEIR PROOFS

ABSTRACT. We give a summary of theorems we covered, this note is for your preparation for exams.

Without specification, all numbers and symbols correspond to the textbook (Lax-Terrell 2016).

We list theorems we covered into three categories: (A) Theorems we need to know both statements and the complete proofs; (B) Theorems we need to know both statements and proofs in special cases (for example, the theorem is stated for \mathbb{R}^n but we only proved for $n = 2$ or $n = 3$); (C) Theorems we only need to know statements and some illustrative examples, usually those examples show the role of some crucial assumptions in the theorems.¹

(A): Theorems 1.4, 1.12, 1.13, 2.2.

(B): Theorems 1.8.

(C): Theorems 1.1, 1.5, 1.6, 1.9, 1.11, 1.14, 1.16, 1.17, 1.18, 2.1, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.10, 2.11, 2.12, 3.1, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.13.

¹Last updated: 09/14/2016