MATH 355: PRACTICE PROBLEMS

ALEXANDER LEE

1 The Real Numbers

1.2 Some Preliminaries.

1.3 The Axiom of Completeness.

1.4 Consequences of Completeness.

1.5 Cardinality.

1.6 Cantor's Theorem.

2 Sequences and Series

2.2 The Limit of a Sequence.

2.3 The Algebraic and Order Limit Theorems.

Exercise (1).

Exercise (2).

Exercise (3).

Exercise (4).

Exercise (7).

Exercise (9).

Exercise (10).

Exercise (12).

2.4 The Monotone Convergence Theorem and a First Look at Infinite Series.

Exercise (1).

Exercise (3).

Exercise (8).