

EXAM 1 PRACTICE PROBLEMS

1. BIJECTIONS & CARDINALITY

Problems 4.34, 4.37, 4.43, 4.47. Also, show

- (1) Show that the set \mathbb{Q} is countably infinite.
- (2) Assuming the fact that \mathbb{R} is uncountable, show that the set of irrational numbers is uncountably infinite. s

2. BASIC ANALYSIS

Problems 13.5, 13.3, 13.10, 13.26, 13.28, 13.32, 14.3, 14.9, 14.14, 14.15, 14.20