



UNIVERSITEIT VAN AMSTERDAM
INSTITUTE FOR LOGIC, LANGUAGE AND COMPUTATION

Advanced Topics in Set Theory

2003/2004; 1st Semester
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Homework Set # 7.

Deadline: December 2nd, 2003

Exercise 23 (Suslin property and cardinality).

Let X and Y be sets such that there is a bijection between X and Y . Show that a set is X -Suslin if and only if it is Y -Suslin. Show that every subset of Baire space is $\mathbb{N}^{\mathbb{N}}$ -Suslin.

Hint. Check the (rather terse) proof of Proposition 13.13 in Kanamori's book.

Exercise 24 (Suslin property and projections).

Show that the κ -Suslin sets are closed under projections. Show that every Σ_2^1 set is \aleph_1 -Suslin.

Hint. Again, check Proposition 13.13 in Kanamori's book.