Lecture 32: Counting

Math 345

Monday, November 22, 2010

Jim Fowler

Textbook

This lecture discusses section 13 of the textbook.

Homework

The homework is due Wednesday, November 24, 2010. From Section 13 of the textbook, do exercises 1, 6, and 8.

topics

Let A and B be sets. To say that A is equinumerous to B means that there exists a bijection from A to B.

this is an equivalence relation—prove it.

define "finite."

define "infinite."

possible for an infinite set to equinumerous to a proper subset of itself

A finite set cannot be equinumerous to a proper subset of itself.

An injection from a finite set to itself is a surjection.

A subset of a finite set is finite.