Math 2001: Homework W6

Due: November 14, 2008

The following assignment will be graded with an emphasis on clarity of exposition. You should write in complete sentences, be as precise as possible, and be mathematically correct (both in content and format). Be sure to include a title, a short introduction to the topic, and to define all the relevant mathematical terms. The assignment should be **typed**.

Pick two of the Catalan sets we worked with in class (November 7), and show that they have the same number of elements using a concrete bijection. You should be sure to

(a) Carefully describe the sets,

(b) Give an explicit function (described as a general process), and give an explicit inverse function (described as a general process),

(c) Explain why your functions are functions and why they are inverses of one-another,

(d) Illustrate your functions with a large example.