MATH 4606. Fall 2006. **Advanced Calculus**
HOMEWORK 1
Due date: Friday, September 15

PART A. (0 point)

1. Verify the statements, identities, claims, proofs given in lectures.

2. Rewrite some theorems you have learned in the form of mathematical statements. Write their negations.

PART B. (100 points) For each topic Logic, Sets, Functions, select and prove two properties or identities stated in class. Also assign points to each problem. Each problem should not be too trivial and should be worth between 15 and 20 points.

PART C. (0 point) Find some new properties related to the subjects studied in class and prove them. If they are not of your own, write their sources.