# Assignment 4 in Advanced Calculus I (Math 409)

due to Sept 29, 2008

p. 43-44 Exercises $1(a)(d)$, $2(b)(d)$ (explain), 4, 5;

p. 48-49 Exercises 2, 5, 6, 9;

In addition you may get 30% bonus for the solution of the following exercise:

Assume that a sequence $\{x_n\}_{n\in\mathbb{N}}$ converges to $a$ and $y_n = \frac{x_1+x_2...+x_n}{n}$. Prove that the sequence $\{y_n\}_{n\in\mathbb{N}}$ converges to $a$ as well.