

University of Colorado  
Department of Mathematics

2008/2009 Semester 2

Math 4330/5330 Fourier Analysis

Assignment 9

**Due Monday March 30, 2009**

1. Read Sections 5.1 and 5.2 of the Stade textbook (you can skim the proofs) and do the following problems:
  - (a) 5.1.1 and 5.1.2 on p. 264 of the Stade textbook;
  - (b) 5.2.2 on p. 268 of the Stade textbook.
2. Read Section 5.7 and do problem 5.7.1 on p. 295 of the Stade textbook. In the book, the notation  $g_{[\epsilon]}$  is used rather than  $g_\epsilon$ , but they mean the same thing.
3. If you are enrolled in Math 5330, problem 5.1.9 on p. 264 and Problem 5.7.2 on p. 295 of the Stade textbook. Note that in 5.7.2 there is a typo: it should state " $\lim_{\epsilon \rightarrow 0^+}$ " rather than " $\lim_{[\epsilon] \rightarrow 0^+}$ ."