

**Real Analysis I Fall 2008**  
**Homework Assignments**

## Homework 1, due in class 9/3/8

Read the first two chapters of Rudin.

Prepare for the first quiz on Friday September 5th.

Material for the first quiz: Chapter one.

Do the following problems from Rudin to be handed in for grading.

- Chapter 1 Problems 5, 6, 10, 14, 15, 19.

Also give a geometrical interpretation for your result in Question 14.

## Homework 2, due 9/12/8

Read the first three chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 2 Problems 2, 3, 5, 6, 8, 11.

## Homework 3, due 9/19/8

Read the first three chapters of Rudin.

Prepare for the first quiz on Friday September 5th.  
Material for the second quiz: Chapters one and two.

Do the following problems from Rudin to be handed in for grading.

- Chapter 2 Problems 7, 9, 13, 16, 17, 22.

## Homework 4, due 9/26/8

Read the first four chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 2 Problems 18, 20, 21, 24, 26, 30.

## Homework 5, due 10/3/8

Read the first four chapters of Rudin.

Prepare for the exam Friday: material to page 58.

Do the following problems from Rudin to be handed in for grading.

- Chapter 2 Problem 27.
- Chapter 3 Problems 2, 3, 4, 5, 16.

## Homework 6, due Tuesday 10/14/8

Read the first four chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 3 Problems 6, 7, 9, 11, 21, 23.

## Homework 7, due Tuesday 10/21/8

Read the first four chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 3 Problems 8, 10, 12, 14, 17, 25.

## Homework 8, due Friday 10/31/8

Read the first five chapters of Rudin.

Prepare for the quiz Friday: limits and continuity.

Do the following problems from Rudin to be handed in for grading.

- Chapter 4 Problems 1, 2, 3, 4, 6, 7.

## Homework 9, due Monday 11/10/8

Read the first five chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 4 Problems 8, 10, 12, 13, 14, 18.

## Homework 10, due Friday 11/14/8

Read the first seven chapters of Rudin.

Prepare for the exam Friday: material to the end of chapter five.

Do the following problems from Rudin to be handed in for grading.

- Chapter 4 Problems 23, 24.
- Chapter 5 Problems 1, 2, 3, 6.

## **Homework 11, due in recitation Tuesday 11/25/8**

Read the first seven chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 5 Problems 13, 22, 25.
- Chapter 6 Problems 2, 6, 10.

## Homework 12, due Tuesday 12/9/8

Read the first seven chapters of Rudin.

Do the following problems from Rudin to be handed in for grading.

- Chapter 6 Problems 3, 4, 11, 13, 15, 18.