FOUNDATIONS OF ANALYSIS
Spring 2009

QUIZ #4 REFERENCE

Following is a copy of the directions for the quiz.

This quiz consists of four questions. No partial credit will be assigned. On each of the questions one can earn a maximum of one point. Please work without the aid of notes, books, calculators, computers and other people.

One can prepare for the quiz by preparing the following:

• definitions
  1. a function
  2. a line in $\mathbb{R}^2$
  3. the open half spaces defined by a line in $\mathbb{R}^2$
  4. the closed half spaces defined by a line in $\mathbb{R}^2$
  5. the angle between two vectors in $\mathbb{R}^2$
  6. a vector space
  7. a subspace of a vector space
  8. an inner product space
  9. a norm on a vector space
 10. the Cauchy-Schwarz inequality
 11. a metric on a non-empty set
 12. convergent infinite sequence in a metric space
 13. Cauchy sequence in a metric space
 14. accumulation point of a sequence in a metric space

• Worksheet #9.2.1
• Worksheet #10.2.3
• worksheet #10.3.1
• the true/false questions for Chapter #8 and #9