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 vector space
  3. a subspace of a vector space
  4. an inner product space
  5. a norm on a vector space
  6. the Cauchy-Schwarz inequality
  7. the angle between two vectors in \( \mathbb{R}^2 \)
  8. a line in \( \mathbb{R}^2 \)
  9. the open half spaces defined by a line in \( \mathbb{R}^2 \)
  10. the closed half spaces defined by a line in \( \mathbb{R}^2 \)
  11. a metric on a non-empty set

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