

Math 4133 - Linear Algebra

Quiz #15 - 2013.02.25

Solutions

1. What is the difference between a spanning set and a basis?

A basis is a minimal length spanning set for a vector space S .

2. How is the rank of a matrix related to the dimension of a vector space?

If a spanning set for a vectors space (subspace) are placed as rows or columns into a matrix, then the dimension of the space (subspace) is the number of nonzero rows in the row reduced form of the matrix.