#ref #hw

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1 | yk what? we got this.

1.0.1 | to review

- remember
  - finite-dimensional!!
- find

  Find null space done!
  find column space / basis done!
  solving systems of equations? skip
  the inverse of a matrix is unique done!
  complex numbers using matrices done!
- proves
  - Prove that any linear transformation can be represented by a matrix :: skip
  - prove that the sum of subspaces A+B is a direct sum iff A intersect B = {0} :: done
  - in a fin dim vec space, the len of any LID set is less than or equal to the len of any spanning set :: done
  - if W1 and W2 are subspaces of a vec space V such that W1 union W2 is also a subspace, then one of the spaces is contained in the other :: done
  - v1,…,vm is a list of vecs such that tv1,…,tvm is a LID in w. prove that v1,…,vm is LID. is converse true? :: done
  - prove that a nonempty subset W of V is a subspace of V iff for each pair of vectors w1, w2 in W and each scalar c in F the vector cw1 + w2 in W. :: skip
- review

  linear dependence lemma done
  group done
  range done
  fundamental theorem done
  linear maps and basis of domain done
    - linear maps can be uniqely defined by what they do to the basis
- questions

  span question done
    - we can always remove u, and the list would be unchanged!