

1 | intro

1.1 | **speaking is important**

1.2 | **tutorial: probably tuesdays and thursdays at lunch**

2 | isomorphisms

2.1 | **an invertible / bijective map from one vectorspace to another**

2.2 | **an operator (map from a vector space to itself) is bijective iff it is surjective or injective**

3 | 3D Exercises

3.1 | **Axler3D.3**

3.1.1 | **suppose V is finite-dimensional, U is a subspace of V , and $S \in \mathcal{L}(U, V)$. Prove there exists an invertible operator $T \in \mathcal{L}(V)$ s.t. $Tu = Su$ for every $u \in U$ iff S is injective**

3.1.2 | **maybe S needs to be an operator on $\mathcal{L}(U)$?**