

#flo #inclass

1 | Dimension

notes, inclass, on KBxChapter2CReading.

1.0.1 | number of basis

$\{0\}$ is just a point! so you have zero places to move. thus, it has dimension 0, and its basis is len 0. else, you can get **infinite number of basis in a vector space**.

1.0.2 | number of dimensions dependent on scalar field

assume a vec space is over \mathbb{F} !

vector space $\mathbb{C}^1 \rightarrow 2D$ if over \mathbb{R} , and $1D$ if over \mathbb{C} because you need the field of scalars!

uncountable infinity! might check it out, later.

trivial extension just means doing nothing trivial reduction just means doing nothing.

1.0.3 | dimension of a sum proof! oh jeez

KBxChapter2CReading#formula for dimension of sum of two subspaces ok, reviewing it!

union of subspaces doesn't normally work well, because the result is generally not a subspace.

but it works for sets!

when two planes intersect at a line, and you sum them, then you can get anywhere in \mathbb{R}^3 ?

don't want to overcount the intersecting line?

this still makes no sense.