Linear Transformations & Matrices

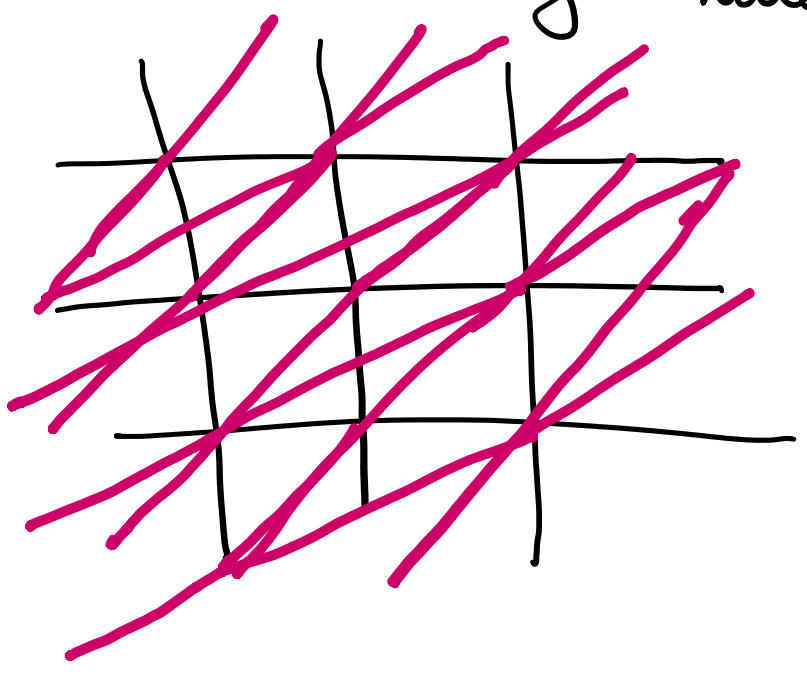
пятница, 29 марта 2019 г. 21:30

Linear Transformations are just functions.

$L\vec{v} = \vec{w}$, Transforming 1 vector into another.

- Keeps vector transformations
  equivalently proportioned
  - parallel
  - evenly spaced
  - origin must be fixed in place.

(Meaning "additivity" "scaling".)



Matrices are just shorthand forms of the transformation of basis vectors $i, j, \ldots$ and then their application to a non transformed vector.

$$\begin{bmatrix} 0 & 2 \\ 4 & 3 \end{bmatrix}$$

↑ i-transformed basis vector

← j-transformed basis vector.

} Apply as linear combinations to another input vector.