Info

This note, that was found here, as a part of a collection
is written (completely with human hands) by Rupadarshi Ray,
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$\begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$

as generator of $\mathbb{C}$-representation of $\mathbb{Z}$

$$n \mapsto \begin{bmatrix} 1 & n \\ 0 & 1 \end{bmatrix}$$

is a representation of $\mathbb{Z}$ on k^2 that has a invariant subspace spanned by $(1, 0)$.

This representation is thus reducible, but we can show it does not have a complementary invariant subspace. So it does not decompose into irreducible representations.

iterations of the endomorphism on $\mathbb{R}^2$

https://www.desmos.com/calculator/6f1lnzckc0

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style: height: 900px;
urlSuffix: www.desmos.com/calculator/6f1lnzckc0
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flow of the vector field in $\mathbb{R}$

https://www.desmos.com/calculator/u2xcmzoru2

$$\exp t \begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix} = \begin{bmatrix} e^t & t \\ 0 & e^t \end{bmatrix}$$

The flow is topologically conjugate to

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

Current note has 0 direct children and 0 total descendants.

- squishy
  - Matrices
    - $\begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$

And it has 4 siblings.

- squishy
  - Matrices
    - $\begin{bmatrix} 2 & \\ & \frac{1}{2} \end{bmatrix}$
    - $\begin{bmatrix} 1 & 1 \\ 1 & 0 \end{bmatrix}$
    - $\begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}$
    - $\begin{bmatrix} 2 & 1 \\ 1 & 1 \end{bmatrix}$