Thought Processes

- As geometric transformations
- As algebraic transformations

Examples

$\begin{matrix} x & 0 \\ 0 & y \end{matrix}$ | Scale by x and y $\begin{matrix} 0 & 1 \\ -1 & 0 \end{matrix}$ | Rotate -90deg (easier to visualize geometrically, also two reflections (over $y = x$ and $y = 0$)) $\begin{matrix} 1 & 1 \\ 0 & 1 \end{matrix}$ | Add y to x (easier to visualize algebraically, also a shear)

Related

- [KBe2020math530retPracticeMultiplyMatrixIdentfyGroups]