> $restart : with(LinearAlgebra) :$
> $e\_1 := Vector([1, 0, 0])$

$$e\_1 := \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}$$ (1)

> $e\_2 := Vector([0, 1, 0])$

$$e\_2 := \begin{bmatrix} 0 \\ 1 \\ 0 \end{bmatrix}$$ (2)

> $A := \dfrac{1}{2} \cdot (e\_1 \cdot Transpose(e\_1) + e\_2 \cdot Transpose(e\_2) + e\_1 \cdot Transpose(e\_2)$
  $+ e\_2 \cdot Transpose(e\_1))$

$$A := \begin{bmatrix} \frac{1}{2} & \frac{1}{2} & 0 \\ \frac{1}{2} & \frac{1}{2} & 0 \\ 0 & 0 & 0 \end{bmatrix}$$ (3)

> # Is A = Transpose(A)?
> $Transpose(A)$

$$\begin{bmatrix} \frac{1}{2} & \frac{1}{2} & 0 \\ \frac{1}{2} & \frac{1}{2} & 0 \\ 0 & 0 & 0 \end{bmatrix}$$ (4)

> # YES!
> # Is A = A²?
> A^2

$$\begin{bmatrix} \frac{1}{2} & \frac{1}{2} & 0 \\ \frac{1}{2} & \frac{1}{2} & 0 \\ 0 & 0 & 0 \end{bmatrix}$$ (5)

> # YEHAAAHHH
> # The subspace is thus e_1 + e_2
>