Fundamental Subspaces

$\text{Row}A$

The space spanned by the rows of matrix.

Properties

- The basis for $\text{Row}A$ is given by the pivot rows of A.
- $\dim\left(\text{Row}A\right) = \dim\left(\text{Col}A\right)$
- $\text{Row}A = \text{Col}A^T$

$\text{Col}A$

Look [Column Space and Null Space](#) to learn more.

$\text{Null}A$

Look [Column Space and Null Space](#) to learn more.

Properties

- $\left(\text{Row}A\right)^{\perp} = \text{Null}A$
- $\left(\text{Null}A\right)^{\perp} = \text{Row}A$

$\text{Null}A^T$

Properties

- $\left(\text{Col}A\right)^{\perp} = \text{Null}A$
- $\left(\text{Null}A\right)^{\perp} = \text{Col}A$