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.
- $\dim(\text{Row}A) = \dim(\text{Col}A)$
- $\text{Row}A = \text{Col}A^T$

$\text{Col}A$

Look Column Space and Null Space to learn more.

$\text{Null}A$

Look Column Space and Null Space to learn more.

Properties

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

$\text{Null}A^T$

Properties

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