

Simple Linear Algebra: Matrix Operations

--- PBD-1803: Linear Algebra - Simple Matrix Operations ---

Matrix A:

$$\begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

Matrix B:

$$\begin{bmatrix} 5 & 6 \\ 7 & 8 \end{bmatrix}$$

Matrix A + B (Element-wise Addition):

$$\begin{bmatrix} 6 & 8 \\ 10 & 12 \end{bmatrix}$$

Matrix A @ B (Matrix Multiplication):

$$\begin{bmatrix} 19 & 22 \\ 43 & 50 \end{bmatrix}$$

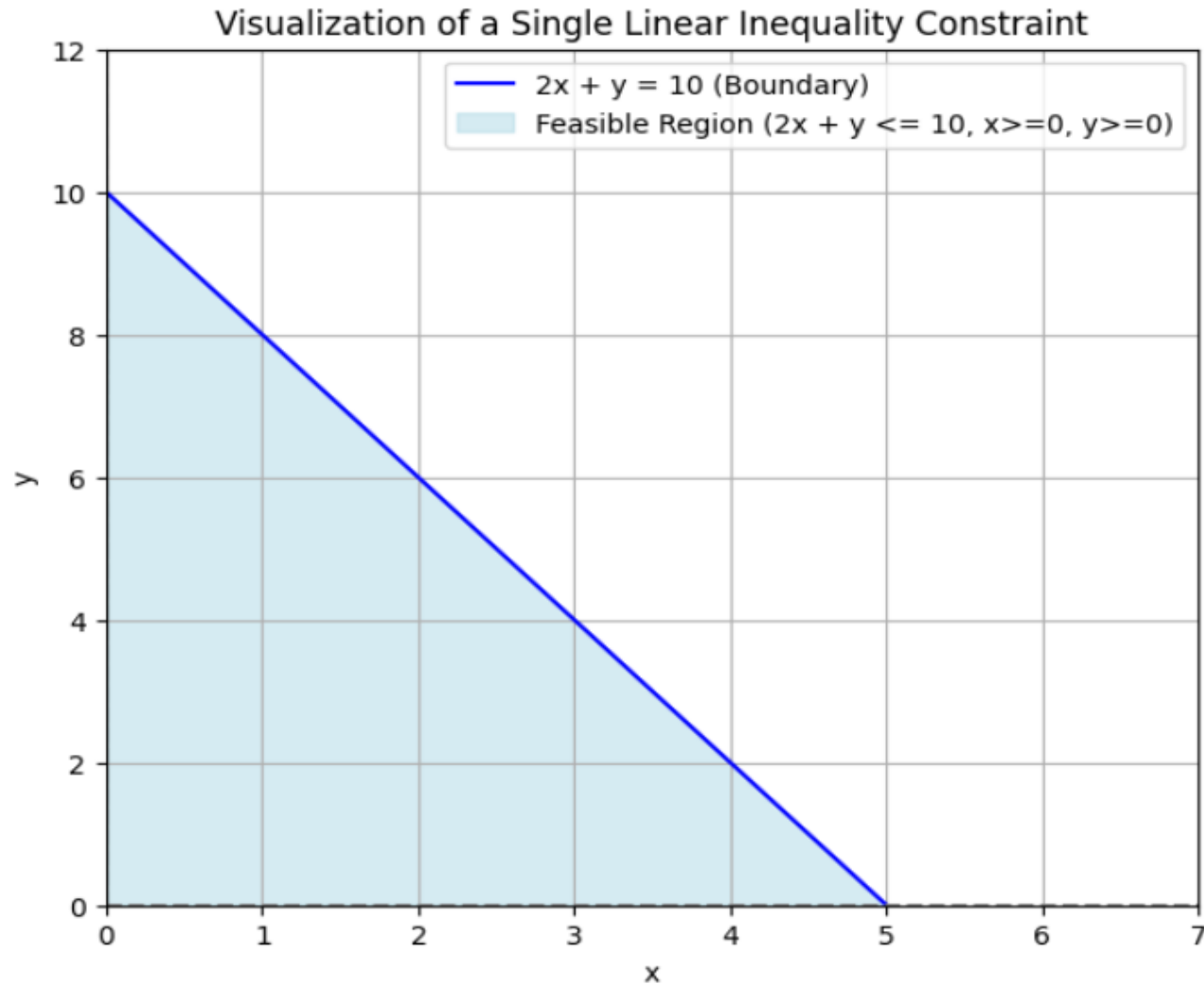
Transpose of Matrix A:

$$\begin{bmatrix} 1 & 3 \\ 2 & 4 \end{bmatrix}$$

These are foundational operations used extensively in various algorithms like regression and machine learning.

Simple Linear Programming: Visualizing a Single Constraint

--- PBD-1803: Linear Programming - Simple Constraint Visualization ---



This visualization shows how a single linear inequality defines a 'feasible region' where solutions can exist within a linear programming problem.