LaTex document for LAFF class: notes

Homework 1.3.2.1

$$\begin{bmatrix} -1 \\ 2 \end{bmatrix} + \begin{bmatrix} -3 \\ -2 \end{bmatrix} = \begin{bmatrix} -4 \\ 0 \end{bmatrix}$$

Homework 1.3.2.2

$$\begin{bmatrix} -3 \\ -2 \end{bmatrix} + \begin{bmatrix} -1 \\ 2 \end{bmatrix} = \begin{bmatrix} -4 \\ 0 \end{bmatrix}$$

Homework 1.3.2.3

For x , $y \in \mathbb{R}^n$, $x + y = y + x$

ALWAYS

Homework 1.3.2.4

$$(\begin{bmatrix} -1 \\ 2 \end{bmatrix} + \begin{bmatrix} -3 \\ -2 \end{bmatrix}) + \begin{bmatrix} 1 \\ 2 \end{bmatrix} = \begin{bmatrix} -3 \\ 2 \end{bmatrix}$$

Homework 1.3.2.5

$$\begin{bmatrix} -1 \\ 2 \end{bmatrix} + (\begin{bmatrix} -3 \\ -2 \end{bmatrix} + \begin{bmatrix} 1 \\ 2 \end{bmatrix}) = \begin{bmatrix} -3 \\ 2 \end{bmatrix}$$

Homework 1.3.2.6

For x , y , $z \in \mathbb{R}^n$, $(x + y) + z = x + (y + z)$

ALWAYS

Homework 1.3.2.7

$$\begin{bmatrix} -1 \\ 2 \end{bmatrix} + \begin{bmatrix} 0 \\ 0 \end{bmatrix} = \begin{bmatrix} -1 \\ 2 \end{bmatrix}$$

Homework 1.3.2.8

For $x \in \mathbb{R}^n$, $x + 0 = x$ where 0 is the zero vector of appropriate size.

ALWAYS