Matrix Algebra Lesson 1

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Problem 1.1

a

$$\begin{bmatrix} -1\\0\\1\end{bmatrix}$$

 \mathbf{b}

$$\begin{bmatrix} 2 & 4 & 6 \end{bmatrix}$$

 \mathbf{c}

4

 \mathbf{d}

$$\begin{bmatrix} -2 & 0 & 2 \\ -4 & 0 & 4 \\ -6 & 0 & 6 \end{bmatrix}$$

Problem 1.2

a

$$\begin{bmatrix} 1 & 1 & 1 \\ 0 & 1 & 0 \end{bmatrix}$$

 \mathbf{b}

$$\begin{bmatrix} 0 & 0 \\ 3 & 1 \\ 3 & 1 \end{bmatrix}$$

$$\begin{array}{cccc}
\mathbf{c} \\
\begin{bmatrix}
-1 & 0 & -1 \\
2 & 0 & 1 \\
0 & 2 & 1
\end{bmatrix}$$

 \mathbf{d}

$$\begin{bmatrix} 2 & 0 & -2 \\ 2 & 0 & -2 \\ -2 & 0 & 2 \end{bmatrix}$$

Problem 1.3

 \mathbf{a}

Problem 1.4

 \mathbf{a}

$$x = 3$$

$$y = 1.5$$

$$z = -.5$$