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Homework #1

Page 32 #'s 5 and 7

5) Write the system of equations equivalent to the given vector equation:

$$\begin{array}{r} 3 \quad 5 \quad 2 \\ X_1 \quad -2 + X_2 \quad 0 = -3 \\ 8 \quad -9 \quad 8 \end{array}$$

$$\begin{array}{r} 3x_1 \quad 5x_2 \quad 2 \\ = -2x_1 + 0x_2 = -3 \\ 8x_1 \quad -9x_2 \quad 8 \end{array}$$

$$\begin{array}{r} 3 \quad 5 \quad 2 \\ = -2 \quad 0 \quad -3 \\ 8 \quad -9 \quad 8 \end{array}$$

$$\begin{array}{l} = 3x_1 + 5x_2 = 2 \\ -2x_1 = -3 \\ 8x_1 - 9x_2 = 8 \end{array}$$

7) Vector A U-2V
Vector B 2U-2V
Vector C 2U-3.5V
Vector D 3U-4V

1) Multiply the matrix and find Ax

$$\begin{array}{ccc} -4 & 2 & 3 \\ 1 & 6x & -2 \\ 0 & 1 & 7 \end{array}$$

The equation is undefined to solve because the column in the first matrix does not equal the row in the second matrix