Soal B

1. $\begin{bmatrix} 3 & 1 & -2 \\ 5 & 6 & 1 \\ -1 & 4 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 3 \\ 5 \\ 1 \end{bmatrix}$

$\rightarrow \left[\begin{array}{ccc|c} 3 & 1 & -2 & 3 \\ 5 & 6 & 1 & 5 \\ -1 & 4 & 5 & 1 \end{array}\right] = \left[\begin{array}{ccc|c} 3 & 1 & -2 & 3 \\ 5 & 6 & 1 & 5 \\ -1 & 4 & 5 & 1 \end{array}\right] \xrightarrow{H_1(1/3)} \left[\begin{array}{ccc|c} 1 & 1/3 & -2/3 & 1 \\ 5 & 6 & 1 & 5 \\ -1 & 4 & 5 & 1 \end{array}\right]$

$\xrightarrow{H_{21}(-5)} \left[\begin{array}{ccc|c} 1 & 1/3 & -2/3 & 1 \\ 0 & 13/3 & 13/3 & 0 \\ -1 & 4 & 5 & 1 \end{array}\right] \xrightarrow{H_{31}(1)} \left[\begin{array}{ccc|c} 1 & 1/3 & -2/3 & 1 \\ 0 & 13/3 & 13/3 & 0 \\ 0 & 13/3 & 13/3 & 2 \end{array}\right]$

$\xrightarrow{H_2(3/13)} \left[\begin{array}{ccc|c} 1 & 1/3 & -2/3 & 1 \\ 0 & 1 & 1 & 0 \\ 0 & 13/3 & 13/3 & 2 \end{array}\right] \xrightarrow{H_{12}(-1/3)} \left[\begin{array}{ccc|c} 1 & 0 & -1 & 1 \\ 0 & 1 & 1 & 0 \\ 0 & 13/3 & 13/3 & 2 \end{array}\right]$

$\xrightarrow{H_{32}(-13/3)} \left[\begin{array}{ccc|c} 1 & 0 & -1 & 1 \\ 0 & 1 & 1 & 0 \\ 0 & 0 & 0 & 2 \end{array}\right]$

∴ Solusi inkonsisten di $0x + 0y + 0z = 2$