

$$9x - 2y + 5z = 2$$

$$3x + 4y - 5z = 5$$

$$2x - 9y - 3z = 0$$

$$x = \frac{[x]}{[6]} = \begin{vmatrix} 2 & -2 & 5 \\ 5 & 4 & -5 \\ 0 & -9 & -3 \end{vmatrix}$$

$$y = \frac{[y]}{[6]} = \begin{vmatrix} 9 & 2 & 5 \\ 8 & 5 & -5 \\ 2 & 0 & -3 \end{vmatrix}$$

$$z = \frac{[z]}{[6]} = \begin{vmatrix} 9 & -2 & 2 \\ 8 & 4 & 5 \\ 2 & -9 & 0 \end{vmatrix}$$

$$y = \begin{vmatrix} 9 & -2 & 5 \\ 8 & 4 & -5 \\ 2 & -9 & -3 \end{vmatrix}$$

Co-factor



$$x = \begin{vmatrix} 2 & -2 & 5 \\ 5 & 4 & -5 \\ 0 & -9 & -3 \end{vmatrix} = 2 \begin{vmatrix} 4 & -5 \\ -9 & -3 \end{vmatrix} - 5 \begin{vmatrix} -2 & 5 \\ -9 & -3 \end{vmatrix} + \cancel{+}$$

$$2(-12 - 45) - 5(6 + 45)$$

$$-114 - 255$$

$$-369$$

$$y = \begin{vmatrix} 9 & 2 & 5 \\ 8 & 5 & -5 \\ 2 & 0 & -3 \end{vmatrix} = 9 \begin{vmatrix} 5 & -5 \\ 0 & -3 \end{vmatrix} - 2 \begin{vmatrix} 8 & -5 \\ 2 & -3 \end{vmatrix} + 5 \begin{vmatrix} 8 & 5 \\ 2 & 0 \end{vmatrix}$$

$$9(-15) - 2(-24 + 10) + 5(0 - 10)$$

$$-135 + 28 - 50$$

$$-157$$

$$z = \begin{vmatrix} 9 & -2 & 2 \\ 8 & 4 & 5 \\ 2 & -9 & 0 \end{vmatrix} = 9 \begin{vmatrix} 4 & 5 \\ -9 & 0 \end{vmatrix} + 2 \begin{vmatrix} 8 & 5 \\ 2 & 0 \end{vmatrix} + 2 \begin{vmatrix} 8 & 4 \\ 2 & -9 \end{vmatrix}$$

$$9(0 + 45) + 2(0 - 10) + 2(-72 - 8)$$

$$405 + (-20) - 160$$

$$225$$



cofactor  $\rightarrow$

$$\begin{vmatrix} 9 & -2 & 5 \\ 8 & 4 & -5 \\ 2 & -9 & -3 \end{vmatrix}$$

$$= -8 \begin{vmatrix} -2 & 5 \\ -9 & -3 \end{vmatrix} + 4 \begin{vmatrix} 9 & 5 \\ 2 & -3 \end{vmatrix} + 5 \begin{vmatrix} 9 & -2 \\ 2 & -9 \end{vmatrix}$$

$$\begin{aligned} & -8(6 + 45) + 4(-27 - 10) + 5(-81 + 4) \\ & -408 + (-148) - 385 \\ & -941 \end{aligned}$$

$$x = \frac{|x|}{|G|} = \frac{|-369|}{|-941|} = 0,39$$

$$y = \frac{|y|}{|G|} = \frac{|-157|}{|-941|} = 0,16$$

$$z = \frac{|z|}{|G|} = \frac{|225|}{|-941|} = -0,23$$