

$$7 \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} + 2 \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} = 14 \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} = \begin{bmatrix} 70 & 140 \\ 98 & 168 \\ 158.2 & 70 \\ 350 & 420 \end{bmatrix}$$

$$3x - 2y + 5z = 7$$

$$7x + 4y - 8z = 3$$

$$5x - 3y - 4z = -12$$

$$\begin{aligned} D &= \begin{vmatrix} 3 & -2 & 5 \\ 7 & 4 & -8 \\ 5 & -3 & -4 \end{vmatrix} = 3 \begin{vmatrix} 4 & -8 \\ -3 & -4 \end{vmatrix} + 2 \begin{vmatrix} 7 & -8 \\ 5 & -4 \end{vmatrix} + 5 \begin{vmatrix} 7 & 4 \\ 5 & -3 \end{vmatrix} = \\ &= 3(-16 - 24) + 2(-28 + 40) + 5(-21 - 20) = -120 + 24 - 205 = -301 \neq 0 \\ D_1 &= \begin{vmatrix} 7 & -2 & 5 \\ 3 & 4 & -8 \\ -12 & -3 & -4 \end{vmatrix} = -301 \end{aligned}$$

$$D_2 = \begin{vmatrix} 3 & 7 & 5 \\ 7 & 3 & -8 \\ 5 & -12 & -4 \end{vmatrix} = -903$$

$$D_3 = \begin{vmatrix} 3 & -2 & 7 \\ 7 & 4 & 3 \\ 5 & -3 & -12 \end{vmatrix} = -602$$

$$x = D_1/D = 1$$

$$y = D_2/D = 3$$

$$z = D_3/D = 2$$