GAUSS ELIMINATION METHOD WITH COMPLETE PIVOTING

$$x_1 + x_2 + x_3 = 3$$
$$4x_1 + 3x_2 + 4x_3 = 8$$
$$9x_1 + 3x_2 + 14x_3 = 7$$

$$[A|B] = \left[\begin{array}{ccc|c} 1 & 1 & 1 & 3 \\ 4 & 3 & 4 & 8 \\ 9 & 3 & 14 & 7 \end{array}\right]$$

is mein sb se bery num ko num sb se upper or col num 1 mein rakty gey.

$C_3 \leftrightarrow C_1$

$$\left[\begin{array}{ccc|c} 1 & 1 & 1 & 3 \\ 4 & 3 & 4 & 8 \\ 14 & 3 & 9 & 7 \end{array}\right]$$

$R_3 \leftrightarrow R_1$

$$\left[\begin{array}{ccc|c} 14 & 3 & 9 & 7 \\ 4 & 3 & 4 & 8 \\ 1 & 1 & 1 & 3 \end{array}\right]$$

(2)

$R_2 \to R_2 - 4R_3$, $R_3 \to R_1 - 14R_3$

$$\left[\begin{array}{ccc|c} 14 & 3 & 9 & 7 \\ 0 & -1 & 0 & -4 \\ 0 & -11 & -5 & -35 \end{array}\right]$$

↓ is square matrix mein num se bary num ko num is matrix ke 1st column k top pr rakay gay.

$C_2 \Leftrightarrow C_3$

$$\left[\begin{array}{ccc|c} 14 & 9 & 3 & 7 \\ 0 & 0 & -1 & -4 \\ 0 & -5 & -11 & -35 \end{array}\right]$$

Next Do row operations and then find equations and then find the values of x_1, x_2, x_3

—x—x—