①

$$\left(\begin{array}{ccc|c} 2 & 2 & -1 & 8 \\ 5 & 5 & 3 & 9 \\ 0 & 4 & -2 & 14 \end{array}\right) \begin{array}{l} /2 \\ \\ /4 \end{array} \qquad \frac{R1}{2}$$

$$\frac{R3}{4}$$

$$\left(\begin{array}{ccc|c} 1 & 1 & -1/2 & 4 \\ 0 & 1 & -1/2 & 7/2 \\ 5 & 5 & 3 & 9 \end{array}\right) -5$$

$$-5R_1 + R_3$$

$$0 \quad 0 \quad \frac{11}{2} \quad -11$$

$$\left(\begin{array}{ccc|c} 1 & 1 & -1/2 & 4 \\ 0 & 1 & -1/2 & 7/2 \\ 0 & 0 & 1 & -2 \end{array}\right)$$

$$R_3 / \frac{11}{2}$$

$$-R_2 + R_1$$

$$1 \quad 0 \quad 0 \quad \frac{1}{2}$$

$$\left(\begin{array}{ccc|c} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & -1/2 & 7/2 \\ 0 & 0 & 1 & -2 \end{array}\right)$$

$$\frac{1}{2}R_3 + R_2$$

$$0 \quad 1 \quad 0 \quad 5/2$$

$$\left(\begin{array}{ccc|c} 1 & 0 & 0 & \frac{1}{2} \\ 0 & 1 & 0 & \frac{5}{2} \\ 0 & 0 & 1 & -2 \end{array}\right)$$

$$X_1 = 1/2$$

$$X_2 = 5/2$$

$$X_3 = -2$$