①

$$7 \cdot \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} + 2 \cdot \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} =$$

$$= \begin{bmatrix} 45 & 90 \\ 63 & 108 \\ 101.7 & 45 \\ 225 & 180 \end{bmatrix}$$

2.1 $\begin{cases} 3x - 2y + 5z = 7 \\ 7x + 4y - 8z = 3 \\ 5x - 3y - 4z = -12 \end{cases}$

$$\left(\begin{array}{ccc|c} 3 & -2 & 5 & 7 \\ 7 & 4 & -8 & 3 \\ 5 & -3 & -4 & -12 \end{array}\right) = \left(\begin{array}{ccc|c} 1 & -\frac{2}{3} & \frac{5}{3} & \frac{7}{3} \\ 7 & 4 & -8 & 3 \\ 5 & -3 & -4 & -12 \end{array}\right) =$$

$$= \left(\begin{array}{ccc|c} 1 & -\frac{2}{3} & \frac{5}{3} & \frac{7}{3} \\ 0 & \frac{26}{3} & -\frac{59}{3} & -\frac{40}{3} \\ 0 & \frac{1}{3} & -\frac{37}{3} & -\frac{71}{3} \end{array}\right) = \left(\begin{array}{ccc|c} 1 & -\frac{2}{3} & \frac{5}{3} & \frac{7}{3} \\ 0 & 1 & -\frac{59}{26} & -\frac{40}{26} \\ 0 & \frac{1}{3} & -\frac{37}{3} & -\frac{71}{3} \end{array}\right) =$$

$$= \left(\begin{array}{ccc|c} 1 & 0 & \frac{2}{13} & \frac{17}{13} \\ 0 & 1 & -\frac{59}{26} & -\frac{20}{13} \\ 0 & 0 & -\frac{301}{26} & -\frac{301}{13} \end{array}\right) = \left(\begin{array}{ccc|c} 1 & 0 & \frac{2}{3} & \frac{17}{13} \\ 0 & 1 & -\frac{59}{26} & -\frac{20}{13} \\ 0 & 0 & 1 & 2 \end{array}\right) =$$

$$= \left(\begin{array}{ccc|c} 1 & 0 & 0 & 1 \\ 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & 2 \end{array}\right)$$

$$\begin{cases} x_1 = 1 \\ x_2 = 3 \\ x_3 = 2 \end{cases}$$

(2.2) $$\begin{cases} x^2 + yx - 9 = 0 \\ x - \frac{y}{5} = 0 \end{cases}$$

$$\frac{1}{25} \cdot y^2 + \frac{1}{5} y^2 - 9 = 0$$

$$\frac{6}{25} y^2 - 9 = 0$$

$$\left(\frac{\sqrt{6}}{5} y - 3\right)\left(\frac{\sqrt{6}}{5} y + 3\right) = 0$$

$$y_1 = \frac{3 \cdot 5}{\sqrt{6}} = \frac{5\sqrt{3}}{\sqrt{2}}$$

$$y_2 = \frac{-3 \cdot 5}{\sqrt{6}} = -\frac{5 \cdot \sqrt{3}}{\sqrt{2}}$$

(3) a - длина

b - ширина

$$\begin{cases} a \cdot b = 48 \\ 2 \cdot (a + b) = 28 \end{cases}$$

$$(14 - b) \cdot b = 48$$

$$14b - b^2 = 48$$

$b^2 - 14b + 48 = 0$

D: $196 - 192 = 4$

$$x_{1,2} = \frac{14 \pm 2}{2}$$

$x_1 = 6$

$x_2 = 8$

Ответ: длина = 6, ширина = 8, либо ширина = 6, длина = 8