① $7 \cdot \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} + 2 \cdot \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} = 9 \cdot \begin{bmatrix} 5 & 10 \\ 7 & 12 \\ 11.3 & 5 \\ 25 & 30 \end{bmatrix} = \begin{bmatrix} 45 & 90 \\ 63 & 108 \\ 101.7 & 45 \\ 225 & 270 \end{bmatrix}$

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

$$13x + 2z = 17$$

$$\longrightarrow 3 \cdot (7x + 4y - 8z) + 4 \cdot (5x - 3y - 4z) = 3 \cdot 3 - 12 \cdot 4$$

$$41x - 40z = -39$$

$\begin{cases} 13x + 2z = 17 \\ 41x - 40z = -39 \end{cases}$

$\begin{cases} 260x + 40z = 340 \\ 41x - 40z = -39 \end{cases}$

$$301x = 301$$

$$\boxed{x = 1}$$

$\begin{cases} -2y + 5z = 4 \\ 4y - 8z = -4 \\ -3y - 4z = -17 \end{cases} \longrightarrow 2z = 4$

$$\boxed{z = 2}$$

$$4y - 16 = -4$$
$$4y = 12$$
$$\boxed{y = 3}$$

$\begin{cases} x = 1 \\ y = 3 \\ z = 2 \end{cases}$

(2.2)

$$\begin{cases} x^2 + y \cdot x - 9 = 0 \\ x - y/5 = 0 \end{cases} \longrightarrow 5x = y$$

$$x^2 + 5x^2 - 9 = 0$$

$$6x^2 = 9$$

$$x^2 = \frac{3}{2}$$

$$\begin{cases} x = \pm\sqrt{\dfrac{3}{2}} \\ y = \pm 5\sqrt{\dfrac{3}{2}} \end{cases}$$

(3) Длина: x, ширина: y

$$\begin{cases} 2(x+y) = 28 \\ xy = 48 \end{cases} \rightarrow x + y = 14 \rightarrow y = 14 - x$$

$$x(14 - x) = 48$$

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

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

$$D = b^2 - 4ac = 196 - 192 = 4$$

$$x = \frac{-b \pm \sqrt{D}}{2a}$$

$$x_1 = 8 \rightarrow 8y = 48 \rightarrow y = 6$$
$$x_2 = 6 \rightarrow 6y = 48 \rightarrow y = 8$$

Длина комната 8 м, ширина комната 6 м.