

3. Аналіз виробництва

$$A = \begin{pmatrix} 4 & 1 & 1 \\ 4 & 1 & 2 \\ 6 & 2 & 4 \end{pmatrix}, \quad X = \begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix}, \quad b = \begin{pmatrix} 460 \\ 130 \\ 240 \end{pmatrix}$$

$$4x_1 + x_2 + x_3 = 460$$

$$4x_1 + x_2 + 2x_3 = 130$$

$$6x_1 + 2x_2 + 4x_3 = 240$$

$$(4x_1 + x_2 + 2x_3) - (4x_1 + x_2 + x_3) = 130 - 460 = x_3(-330)$$

$$4x_1 + x_2 - 330 = 460 \quad (790)$$

$$6x_1 + 2x_2 - 1320 = 240 \quad (1560)$$

$$3x_1 + x_2 = 780$$

$$(4x_1 + x_2) - (3x_1 + x_2) = 790 - 780 \quad (10)$$

$$3 \cdot 10 + x_2 = 780 \quad (750)$$

$$x_1 = 10$$

$$x_2 = 750$$

$$x_3 = -330$$