

$$\begin{pmatrix} 200 \\ 1000 \end{pmatrix} + x \cdot \begin{pmatrix} 50 \\ -100 \end{pmatrix} = \begin{pmatrix} 100 \\ 200 \end{pmatrix} + z \cdot \begin{pmatrix} 100 \\ 450 \end{pmatrix}$$

$$200 + 50x = 100 + 100z \quad | -100 - 50x$$

$$1000 - 100x = 200 + 450z \quad | -200 + 100x$$

$$-50x + 100z = 100 \quad \textcircled{\text{I}}$$

$$100x + 450z = 800 \quad | :2$$

$$50x + 225z = 400 \quad \textcircled{\text{II}}$$

$$\begin{array}{r} -50x + 100z = 100 \uparrow \\ 50x + 225z = 400 \end{array} \Bigg) +$$

$$\hline -50x + 100z = 100$$

$$325z = 500$$

$$z = \frac{500}{325}$$

$z$  in  $\textcircled{\text{I}}$

$$\dots \quad x = -1,97$$