$A\ (3, 4) \times B\ (4, 3)$

$A \times B = C\ (3, 3)$

$B \times A = D\ (4, 4)$

$= \underline{\text{MULT}}\ (A ; B)$

CTRL + SHIFT + ENTER

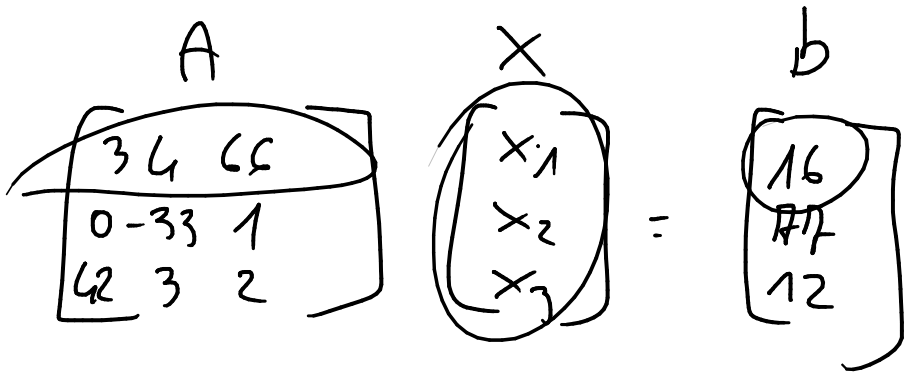
$$A \cdot A^{-1} = I$$

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

TRANSPOSE(A) = A^T

MMULT(A; B)

MINVERSE(A) = A^{-1}



$3x = 6$

$$\begin{cases} 3x_1 + 4x_2 + 66x_3 = 16 \\ -33x_2 + x_3 = 77 \\ 42x_1 + 3x_2 + 2x_3 = 12 \end{cases}$$

$$X = A^{-1} \cdot b$$

$$Ax = b$$

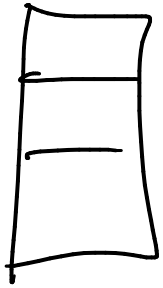
$$Ax A^{-1} = bA^{-1}$$

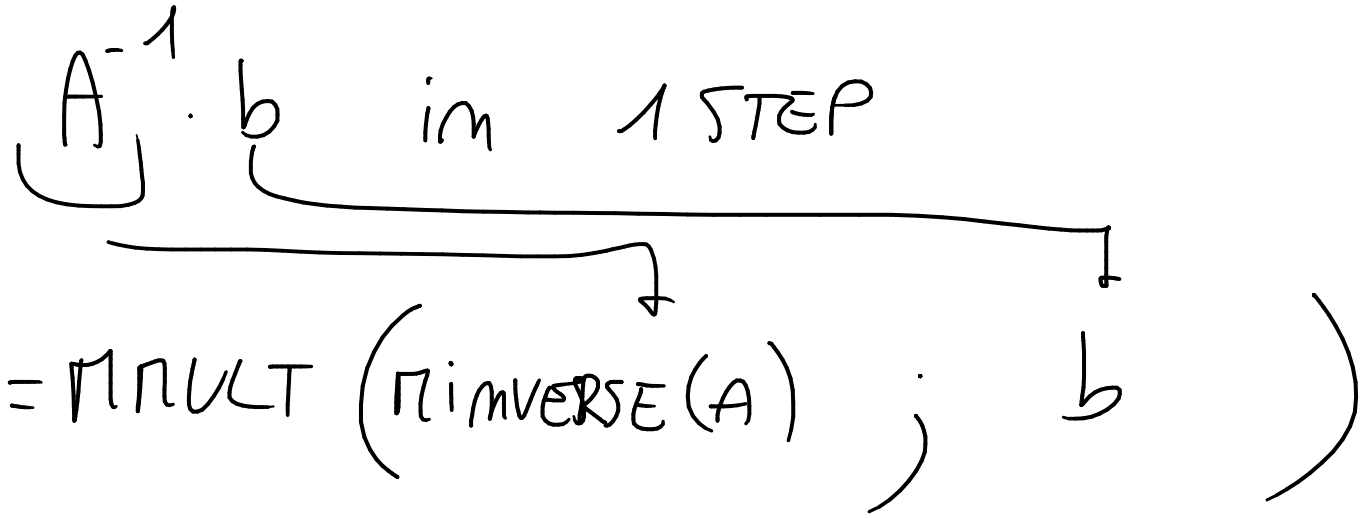
$$A^{-1}Ax = A^{-1}b$$

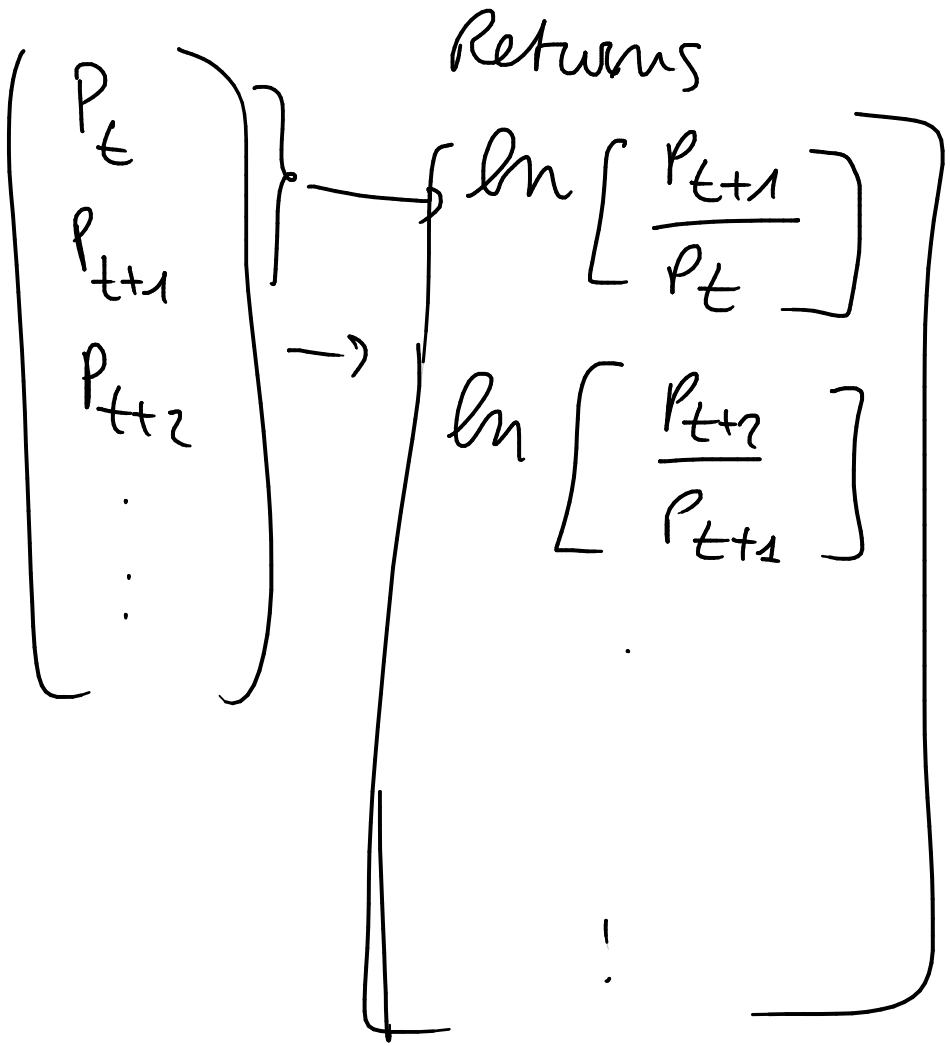
A b

$3 \times 3 \times 3 \times 1 =$

3×1




$A^{-1} \cdot b$ in 1 STEP
= MMULT (minverse(A) ; b)


Returns
P_t
P_{t+1}
P_{t+2}
$\ln\left[\frac{P_{t+1}}{P_t}\right]$
$\ln\left[\frac{P_{t+2}}{P_{t+1}}\right]$

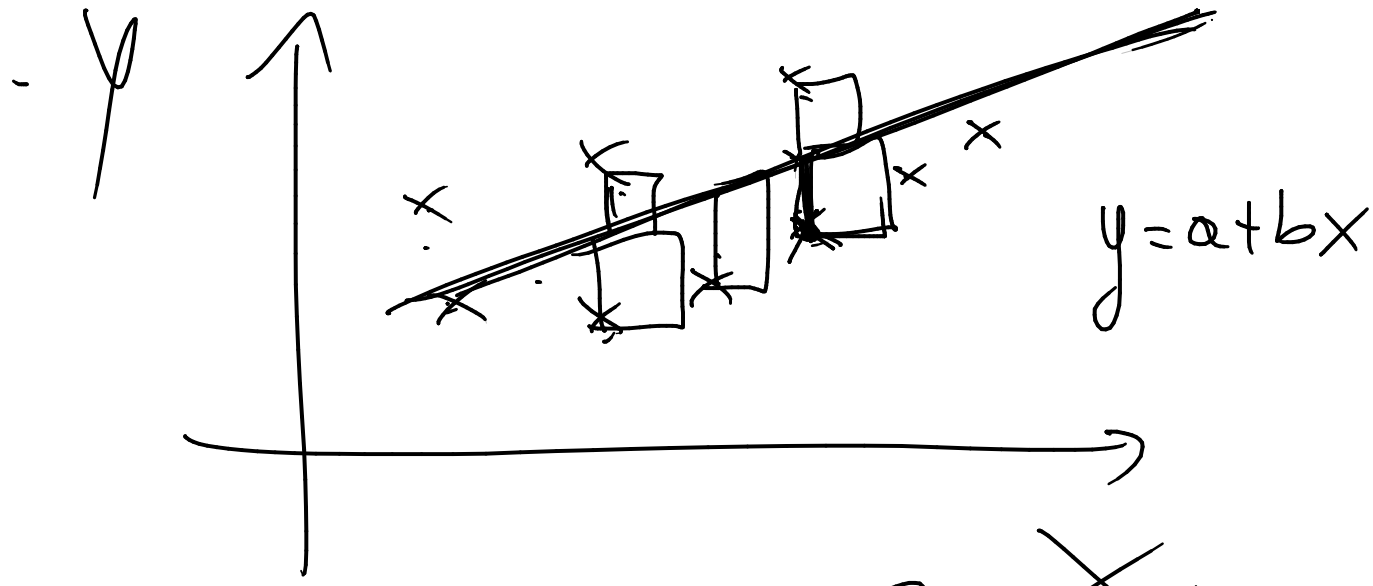
$$\text{AVERAGE}(\text{Returns}) = \frac{1}{n}\sum_i R_i$$

$$\text{VARP}(\text{Returns}) = \frac{1}{n}\sum_i (R_i - \mu)^2$$

$$\text{STDEV}(\text{Returns}) = \sqrt{\text{VARP}(\cdot)}$$

$$\underline{\text{COVAR}}(x, y) = \frac{1}{n}\sum_i \left[(R_i^x - \mu^x)(R_i^y - \mu^y)\right]$$

$$\underline{\text{CORREL}}(x, y) = \frac{\text{COVAR}(x,y)}{\sigma_x \cdot \sigma_y} = \rho$$



$\rho = \sqrt{R^2}$ $\qquad$ R^2

↓

CORREL(x;y) $\qquad$ $0 < R^2 < 1$