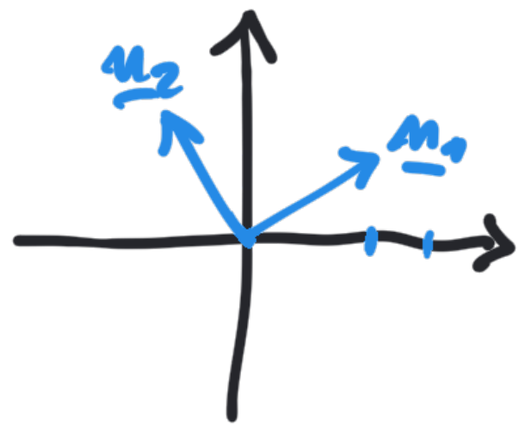
$$\underline{\underline{T}} = \begin{pmatrix} 1.25 & 0.75 \\ 0.75 & 0.45 \end{pmatrix}$$

$$\det\left(\underline{\underline{T}} - \sigma \underline{\underline{I}}\right) = \det\begin{pmatrix} 1.25-\sigma & 0.75 \\ 0.75 & 0.45-\sigma \end{pmatrix}$$

$$(1.25-\sigma)(0.45-\sigma) - (0.75)^2 = 0$$



$$\sigma_1 = 1.7$$

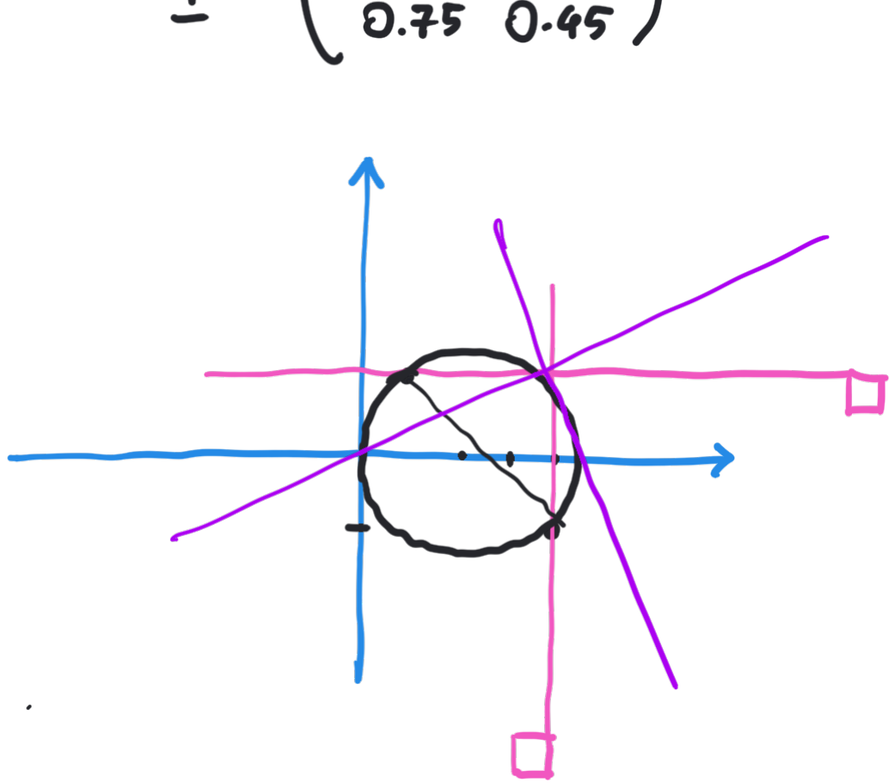
$$\sigma_2 = 0$$

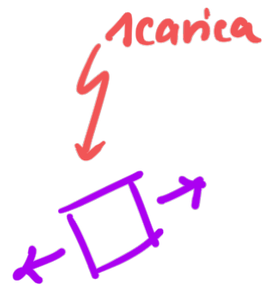
$$\underline{\underline{T}} - \sigma_1 \underline{\underline{I}} = \begin{pmatrix} -0.45 & 0.75 \\ 0.75 & -1.25 \end{pmatrix}$$

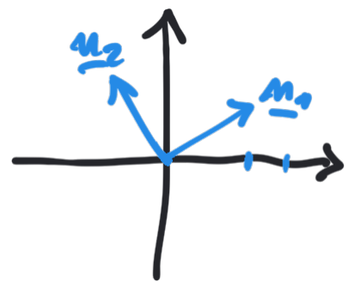
$$\underline{u}_1 = \begin{pmatrix} 0.75 \\ 0.45 \end{pmatrix} / 0.87$$

$$\sqrt{0.75^2 + 0.45^2} = 0.87$$

$$\underline{T} = \begin{pmatrix} 1.25 & 0.75 \\ 0.75 & 0.45 \end{pmatrix}$$







$$\underline{T} - \sigma_1 \underline{I} = \begin{pmatrix} -0.45 & 0.75 \\ 0.75 & -1.25 \end{pmatrix}$$

$$\underline{m}_1 = \begin{pmatrix} 0.75 \\ 0.45 \end{pmatrix} / 0.87$$

$$\sqrt{0.75^2 + 0.45^2} = 0.87$$