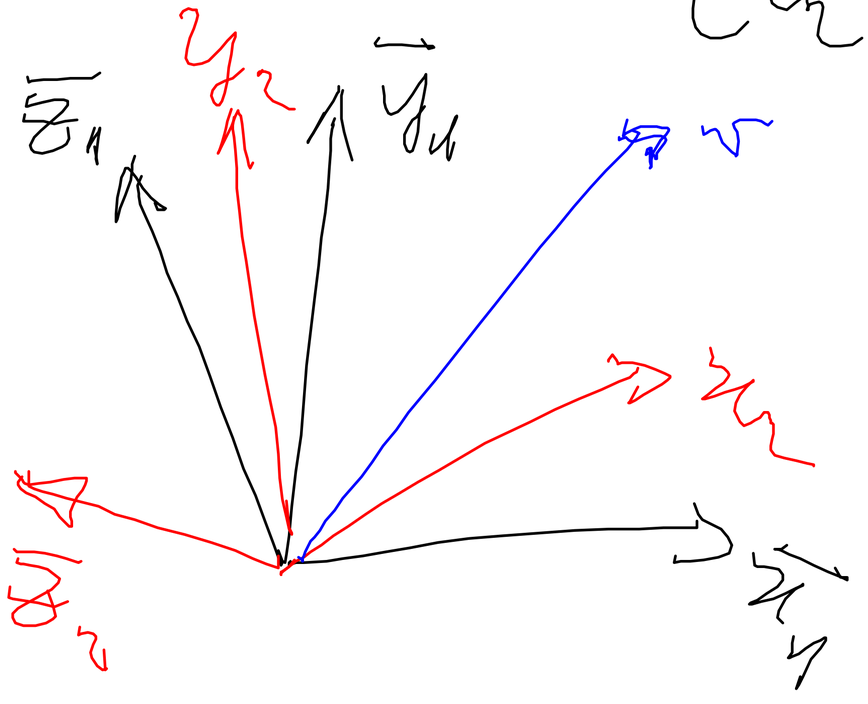
$\vec{x}_1, \vec{y}_1, \vec{z}_1$ $\qquad$ $\vec{x}_2, \vec{y}_2, \vec{z}_2$

$$\vec{v} = a_1 \vec{x}_1 + b_1 \vec{y}_1 + c_1 \vec{z}_1$$

$$\vec{v} = a_2 \vec{x}_2 + b_2 \vec{y}_2 + c_2 \vec{z}_2$$



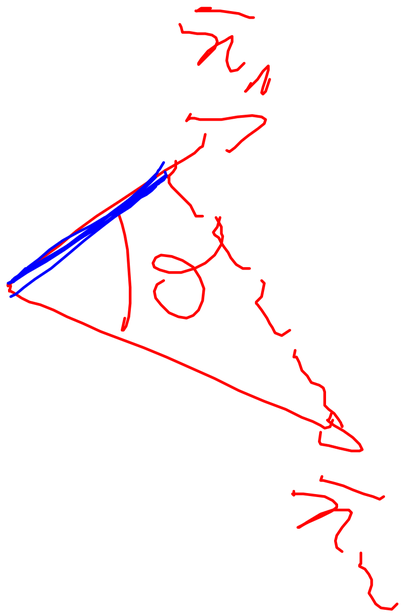
$$a_1 \overbrace{\bar{x}_1 \cdot \bar{x}_1}^{1} + b_1 \bar{x}_1 \cdot \bar{y}_1 \overset{0}{\nearrow} + c_1 \bar{x}_1 \cdot \bar{z}_1 \overset{0}{\nearrow} =$$

$$a_2 \bar{x}_1 \cdot \bar{x}_2 + b_2 \bar{x}_1 \cdot \bar{y}_2 + c_2 \bar{x}_1 \cdot \bar{z}_2$$

$$a_1 = \begin{bmatrix} \bar{x}_1 \cdot \bar{x}_1 & \bar{x}_1 \cdot \bar{y}_2 & \bar{x}_1 \cdot \bar{z}_2 \end{bmatrix} \begin{Bmatrix} a_2 \\ b_2 \\ c_2 \end{Bmatrix}$$

$$\begin{Bmatrix} a_1 \\ b_1 \\ c_1 \end{Bmatrix} = {}_1R_2 \begin{Bmatrix} a_2 \\ y_2 \\ c_2 \end{Bmatrix}$$

$$\begin{bmatrix} \bar{x}_1 \cdot \bar{x}_2 & \bar{x}_1 \cdot \bar{y}_2 & \bar{x}_1 \cdot \bar{z}_2 \\ \bar{y}_1 \cdot \bar{x}_2 & \bar{y}_1 \cdot \bar{y}_2 & \bar{y}_1 \cdot \bar{z}_2 \\ \bar{z}_1 \cdot \bar{x}_2 & \bar{z}_1 \cdot \bar{y}_2 & \bar{z}_1 \cdot \bar{z}_2 \end{bmatrix}$$



$$\bar{x}_1 \cdot \bar{x}_2 = 1 \cdot 1 \cdot \cos\varphi$$

$$R^{-1} = R^T$$