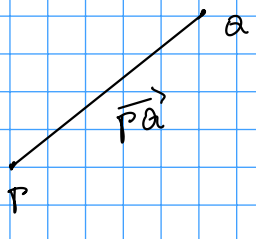
Proposizione $(V, A, \vec{\Pi})$ $P, Q \in A$ $\overrightarrow{PQ}$

$$\phi_{\mathcal{B}}(\overrightarrow{PQ}) = (y_1, \dots, y_m) - (x_1, \dots, x_m)$$



dove $P \underset{\mathcal{R}}{=} (x_1, \dots, x_m)$ e $Q \underset{\mathcal{R}}{=} (y_1, \dots, y_m)$

Dim

$$\overrightarrow{PQ} = \overrightarrow{PO} + \overrightarrow{OQ} = \overrightarrow{OQ} + (-\overrightarrow{OP})$$

Per la 2

$$\phi_{\mathcal{B}}(\overrightarrow{PQ}) = \phi_{\mathcal{B}}(\overrightarrow{OQ} + (-\overrightarrow{OP})) = \phi_{\mathcal{B}}(\overrightarrow{OQ}) - \phi_{\mathcal{B}}(\overrightarrow{OP})$$

Esempio: $\dim V = 2$, $\mathcal{R} = (O, \mathcal{B})$, $\mathcal{B} = (e_1, e_2)$, $O \in A$

$$P \underset{\mathcal{R}}{=} (2,1), \quad Q \underset{\mathcal{R}}{=} (3,-2), \quad \phi_{\mathcal{B}}(\overrightarrow{PQ}) = (1,-3)$$

$$Q \underset{\mathcal{B}}{=} (-3, 5) \qquad \text{ossia} \qquad \overrightarrow{PQ} = 1 \cdot e_1 + (-3)\, e_2$$

$P + Q = Q$: $Q = \overrightarrow{PQ}$ $\qquad Q \underset{\mathcal{R}}{=} (2,1) + (-3,5) = (-1,6)$

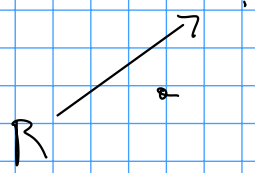
Esempio:

$\dim V = 3$ $\qquad \mathcal{R} = (O, \mathcal{B} = (e_1, e_2, e_3))$ $\qquad O \in A$

$R \equiv_{\mathcal{Q}} (1,0,3)$

$T \equiv_{R} (2,1,-1)$

$\overrightarrow{RT} \equiv_{\mathcal{B}} (1,1,-4)$



$O \equiv_{\mathcal{B}} (2,1,-2) \in V$

$R + o = Q \equiv_{R} (1,0,3) + (2,1,-2) =$

$= (3,1,1)$