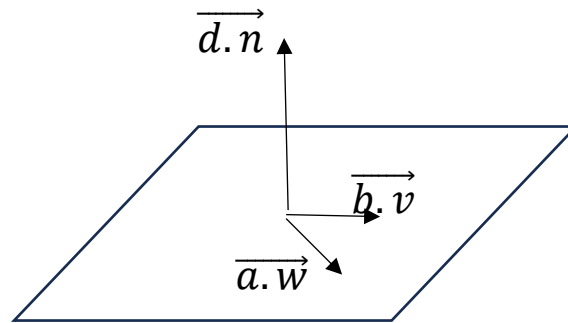


Vector normal dins d'un pla:

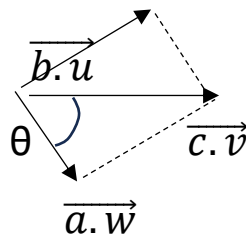


On $\overrightarrow{a.w}$ i $\overrightarrow{b.v}$ formen un angle de 90°

Dilucidar que : $\overrightarrow{c.v} = \overrightarrow{a.w} + \overrightarrow{b.u}$

$$\overrightarrow{a.w} = a.\hat{w} \quad \overrightarrow{b.u} = b \quad \text{i} \quad \hat{u} = \overrightarrow{d.nd} . \hat{n}$$

$\hat{w}$, $\hat{u}$, $\hat{n}$ són unitaris vectors i $\perp$ entre ells



$$\frac{\overrightarrow{b.u}}{\overrightarrow{c.v}} = \sin \theta \quad \overrightarrow{b.u} = \overrightarrow{c.v} . \sin \theta \quad \overrightarrow{b.u} = (\overrightarrow{a.w} + \overrightarrow{b.u}) . \sin \theta$$

$$\hat{u} = \frac{a}{b} . \hat{w} . \sin \theta + \hat{u} . \sin \theta$$

$$\text{o } \overrightarrow{c.v} = \frac{\overrightarrow{b.u}}{\sin \theta} \quad \hat{v} = \frac{b}{c} \frac{\hat{u}}{\sin \theta}$$

ésser conscient això $\hat{u} = (0,1,0)$ $\hat{w} = (1,0,0)$ i $\hat{n} = (0,0,1)$:

$$0 = \frac{a}{b} . 1 . \sin \theta + 0 . \sin \theta$$

$$1 = \frac{a}{b} . 0 . \sin \theta + 1 . \sin \theta$$

$$0 = \frac{a}{b} . 0 . \sin \theta + 0 . \sin \theta$$

Nosaltres maig incloure el cas d' un determinant :

$$A = \begin{vmatrix} \vec{i} & \vec{j} & \vec{k} \\ a.1 & 0 & 0 \\ 0 & b.1 & 0 \end{vmatrix} \begin{matrix} \longrightarrow \overrightarrow{a.w} \\ \longrightarrow \overrightarrow{b.u} \end{matrix}$$

$$A = 0. \vec{i} + 0. \vec{j} + ab \vec{k}$$

