

Multipliiier des **vecteurs**?

$$\vec{a} = \begin{pmatrix} 1 \\ 2 \\ -1 \end{pmatrix}$$

$$\vec{b} = \begin{pmatrix} 2 \\ 3 \\ -1 \end{pmatrix}$$

Produit vectoriel

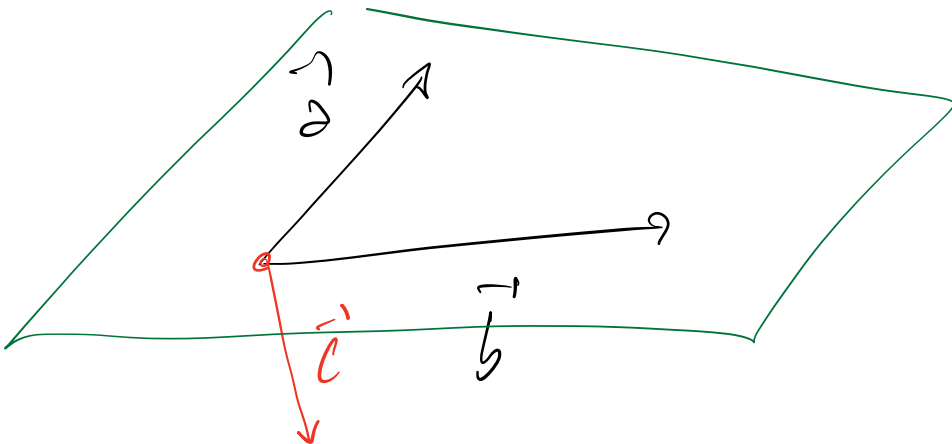
$$\vec{c} = \vec{a} \times \vec{b} = \vec{a} \wedge \vec{b}$$

cross

$$\begin{vmatrix} i & j & k \\ 1 & 2 & -1 \\ 2 & 3 & -1 \end{vmatrix} = \begin{pmatrix} -2 - (-3) \\ -(-1 - (-2)) \\ 3 - 4 \end{pmatrix}$$

$$= \begin{pmatrix} 1 \\ -1 \\ -1 \end{pmatrix}$$

$$\vec{c} \perp \text{plan}(\vec{a}; \vec{b})$$



$$\begin{vmatrix} \vec{a}_1 & \vec{a}_2 & \vec{a}_3 \\ b_1 & b_2 & b_3 \end{vmatrix} = \begin{pmatrix} a_2 b_3 - a_3 b_2 \\ a_3 b_1 - a_1 b_3 \\ a_1 b_2 - a_2 b_1 \end{pmatrix} - (a_1 b_3 - a_3 b_1) \vec{a}_1$$

1.5.1 à 1.5.4

