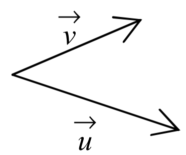
EXERCICE 3B.1

Déterminer le cosinus de $(\vec{u},\vec{v})$ puis l'angle $(\vec{u},\vec{v})$ (ou une approximation, si c'est possible) :

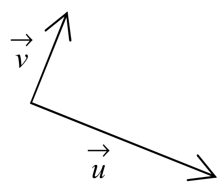
$\lVert\vec{u}\rVert = 4 \quad \lVert\vec{v}\rVert = 8 \quad \vec{u}.\vec{v} = 32$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$	$\lVert\vec{u}\rVert = \sqrt{2} \quad \lVert\vec{v}\rVert = 2\sqrt{2} \quad \vec{u}.\vec{v} = 2\sqrt{3}$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$
$\lVert\vec{u}\rVert = 2 \quad \lVert\vec{v}\rVert = 3 \quad \vec{u}.\vec{v} = -6$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$	$\lVert\vec{u}\rVert = 1 \quad \lVert\vec{v}\rVert = 6 \quad \vec{u}.\vec{v} = -3$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$
$\lVert\vec{u}\rVert = 3 \quad \lVert\vec{v}\rVert = 7 \quad \vec{u}.\vec{v} = 14$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) \approx$	$\lVert\vec{u}\rVert = 6 \quad \lVert\vec{v}\rVert = 1 \quad \vec{u}.\vec{v} = 7$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$
$\lVert\vec{u}\rVert = 2 \quad \lVert\vec{v}\rVert = \sqrt{3} \quad \vec{u}.\vec{v} = -3$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$	$\lVert\vec{u}\rVert = 3\sqrt{2} \quad \lVert\vec{v}\rVert = 2 \quad \vec{u}.\vec{v} = -6$ → $\cos(\vec{u},\vec{v}) =$ → $(\vec{u},\vec{v}) =$

EXERCICE 3B.2

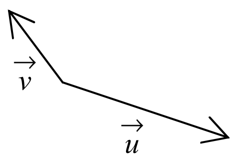
Dans chaque cas, indiquer si le produit scalaire $\vec{u}.\vec{v}$ est positif (>0), négatif (<0) ou nul (=0).



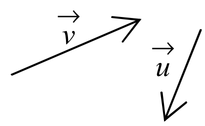
$\vec{u}.\vec{v}$ ....



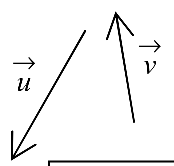
$\vec{u}.\vec{v}$ ....



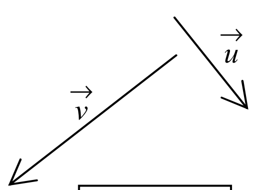
$\vec{u}.\vec{v}$ ....



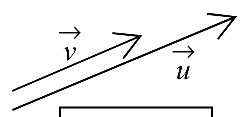
$\vec{u}.\vec{v}$ ....



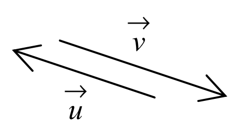
$\vec{u}.\vec{v}$ ....



$\vec{u}.\vec{v}$ ....



$\vec{u}.\vec{v}$ ....



$\vec{u}.\vec{v}$ ....