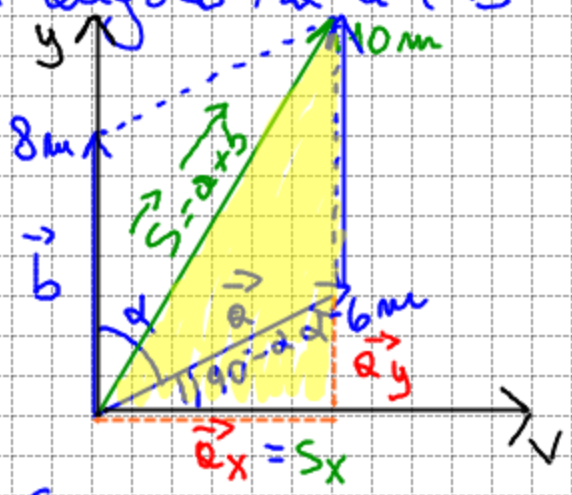
ES

$\vec{a}, \vec{b}$ $\quad a = 6\,m \quad b = 8\,m$

$a+b = 10\,m$

Quanto vale l'angolo tra $\vec{a}$ e $\vec{b}$



$a_x = a \sin\alpha = 6 \sin\alpha \; m$

$a_y = a \cos\alpha = 6 \cos\alpha \; m$

$b_x = 0 \; m$

$b_y = 8\,m$

applico PITAGORA al triangolo colorato

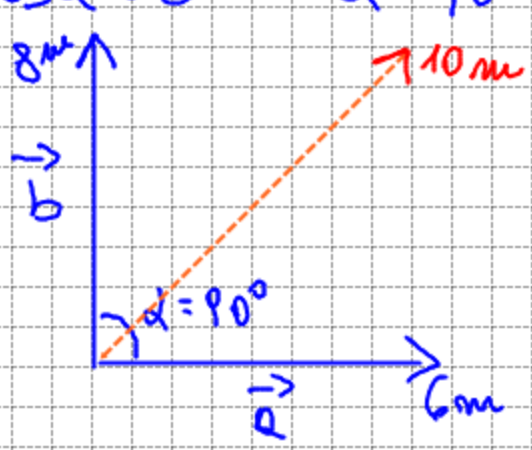
$$(10\,m)^2 = (a_x)^2 + (a_y + 8)^2$$

$$100 = 36\sin^2\alpha + 36\cos^2\alpha + 64 + 96\cos\alpha$$

$$36\underbrace{(\sin^2\alpha + \cos^2\alpha)}_{1} + 96\cos\alpha = 36$$

$$36 + 96\cos\alpha = 36$$

$\cos\alpha = 0 \qquad \alpha = 90°$



$6^2 + 8^2 = S^2$

$S = \sqrt{36+64} = 10\,m$