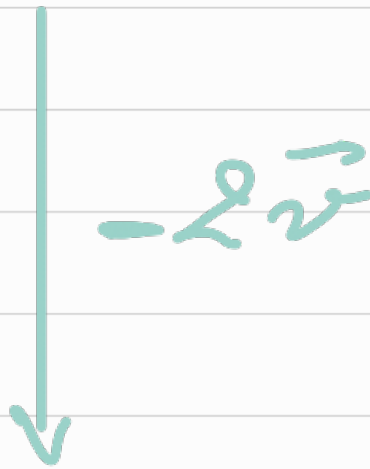
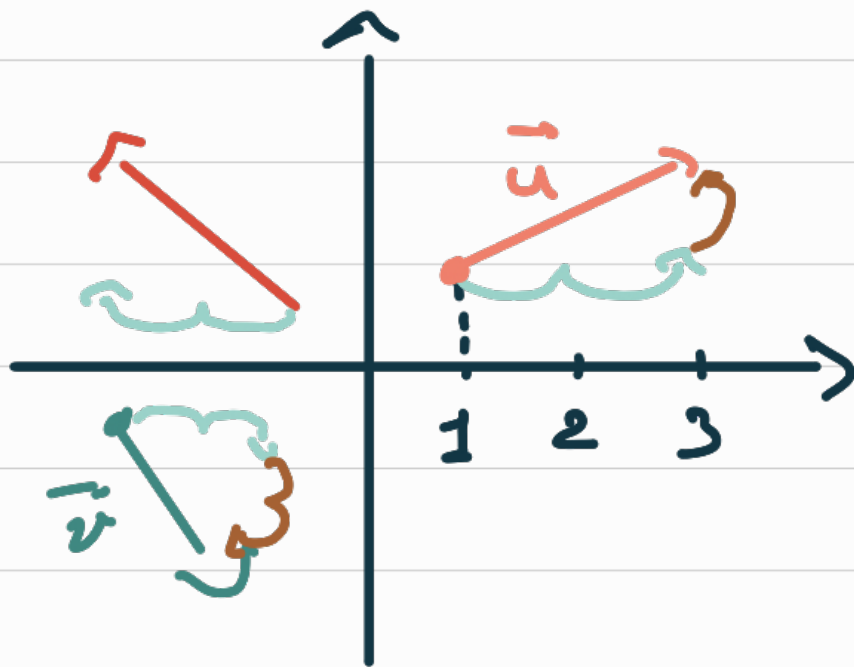


Vectors





$$\vec{u}(2; 1)$$

$$\vec{v}(2; -2)$$

$$\vec{u}(x; y) \text{ et } \vec{v}(x'; y')$$

$$\hookrightarrow \vec{u} = \vec{v} \Leftrightarrow \begin{cases} x = x' \\ y = y' \end{cases}$$

$$A(x_A; y_A)$$

$$B(x_B; y_B)$$

$$\Rightarrow \vec{AB}(x_B - x_A; y_B - y_A)$$

example:

$$A(2; 1)$$

$$B(3; 0)$$

$$\vec{AB}(3 - 2; 0 - 1)$$

$$\vec{AB}(1; -1)$$



$$\vec{u}(x; y) \text{ et } \vec{v}(x'; y')$$

$$\Rightarrow \vec{u} + \vec{v} (x+x'; y+y')$$

$$\Rightarrow k\vec{u} (kx; ky)$$

$$\|\vec{u}\| = \sqrt{x^2 + y^2}$$

$$A(x_A; y_A) \quad B(x_B; y_B)$$

$$\|\vec{AB}\| = AB = \sqrt{(x_B - x_A)^2 + (y_B - y_A)^2}$$

. I milieu de $[AB]$.

$$I \left(\frac{x_A + x_B}{2} ; \frac{y_A + y_B}{2} \right).$$