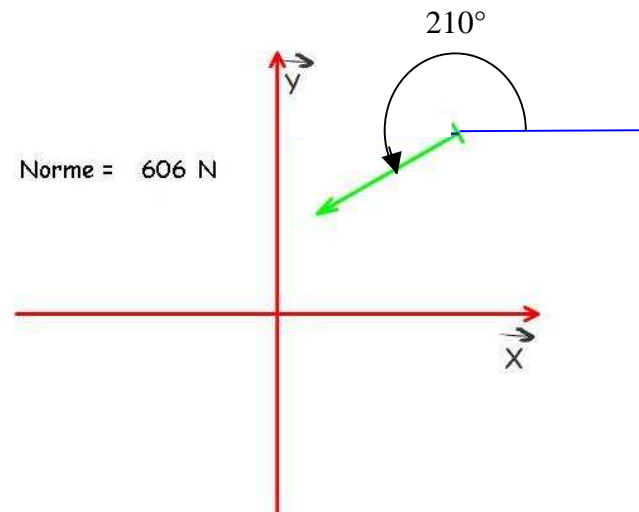
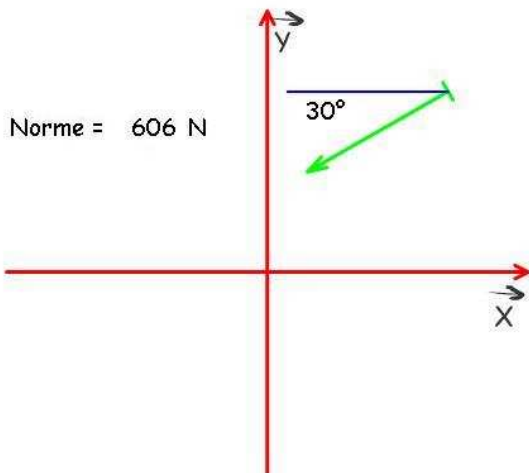


Vecteurs

Exercice 1



1-Calculer les coordonnées de \vec{F}

Expression littérale :

$$\vec{F} \begin{pmatrix} -\|\vec{F}\| \cos 30^\circ \\ -\|\vec{F}\| \sin 30^\circ \end{pmatrix}$$

$$\vec{F}(-\|\vec{F}\| \cos 30^\circ; -\|\vec{F}\| \sin 30^\circ)$$

$$\vec{F} = -\|\vec{F}\| \cos 30^\circ \cdot \vec{x} - \|\vec{F}\| \sin 30^\circ \cdot \vec{y}$$

$$\vec{F} \begin{pmatrix} \|\vec{F}\| \cos 210^\circ \\ \|\vec{F}\| \sin 210^\circ \end{pmatrix}$$

$$\vec{F}(\|\vec{F}\| \cos 210^\circ; \|\vec{F}\| \sin 210^\circ)$$

$$\vec{F} = \|\vec{F}\| \cos 210^\circ \cdot \vec{x} + \|\vec{F}\| \sin 210^\circ \cdot \vec{y}$$

Application numérique :

$$\vec{F} \begin{pmatrix} -525 \\ -303 \end{pmatrix}$$

$$\vec{F}(-525; -303)$$

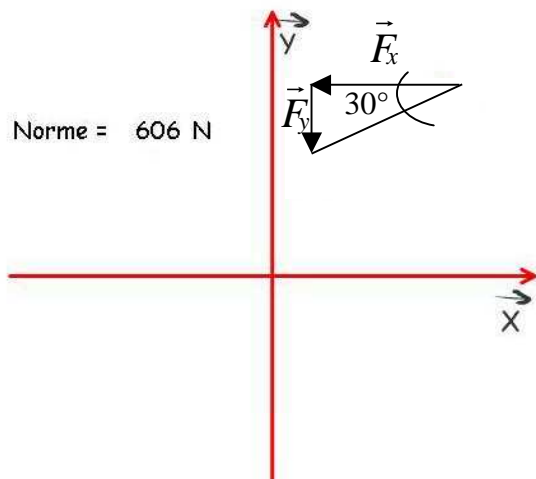
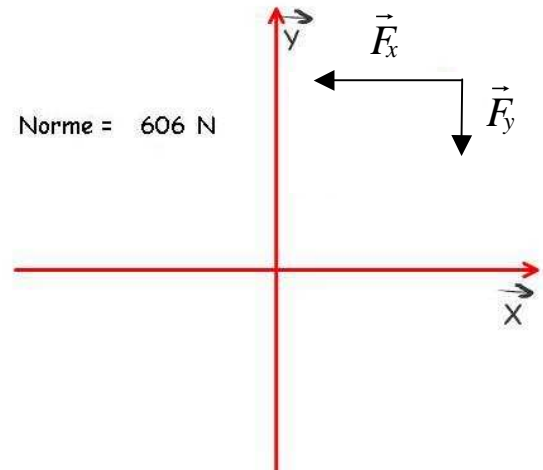
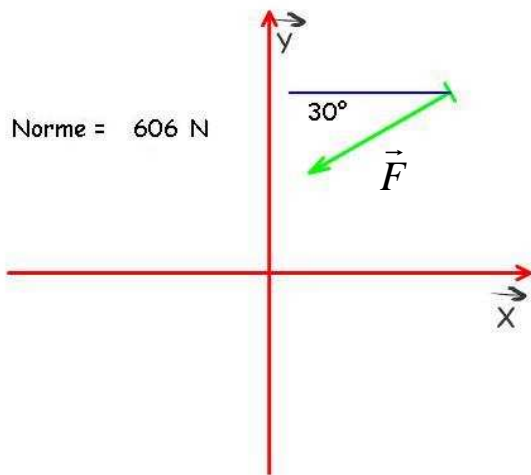
$$\vec{F} = -525 \vec{x} - 303 \vec{y}$$

$$\vec{F} \begin{pmatrix} -525 \\ -303 \end{pmatrix}$$

$$\vec{F}(-525; -303)$$

$$\vec{F} = -525 \vec{x} - 303 \vec{y}$$

2ème méthode



$$\vec{F} = \vec{F}_x + \vec{F}_y$$

$$\vec{F} = -\|\vec{F}_x\| \vec{x} - \|\vec{F}_y\| \vec{y}$$

$$\vec{F} = -\|\vec{F}\| \cos 30^\circ \vec{x} - \|\vec{F}\| \sin 30^\circ \vec{y}$$

$$\vec{F} = -525 \vec{x} - 303 \vec{y}$$

$$\vec{F} \begin{pmatrix} -525 \\ -303 \end{pmatrix}$$