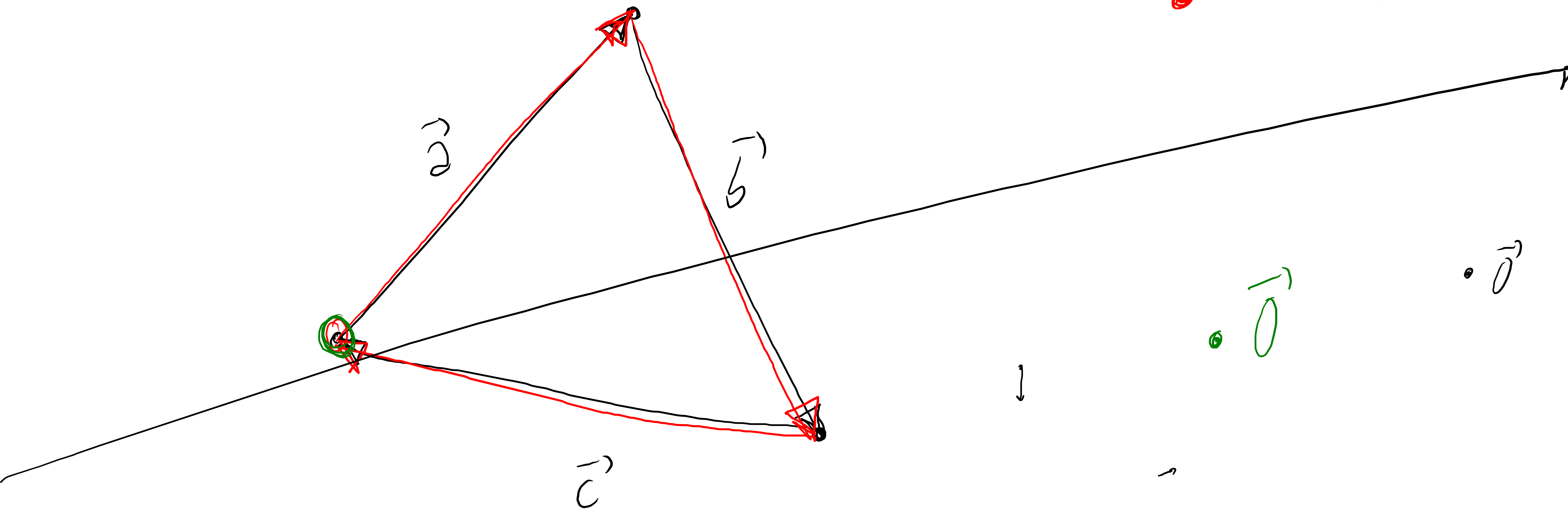
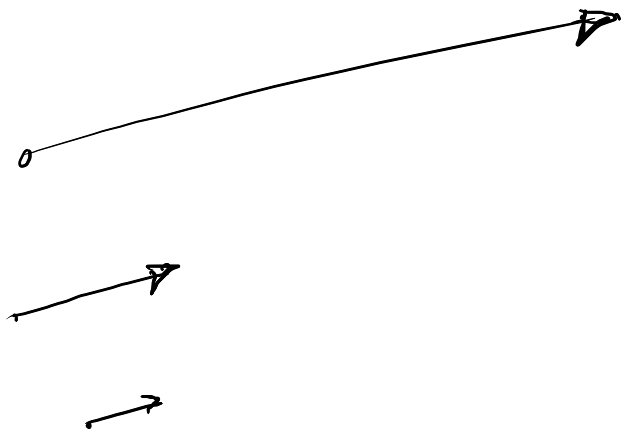
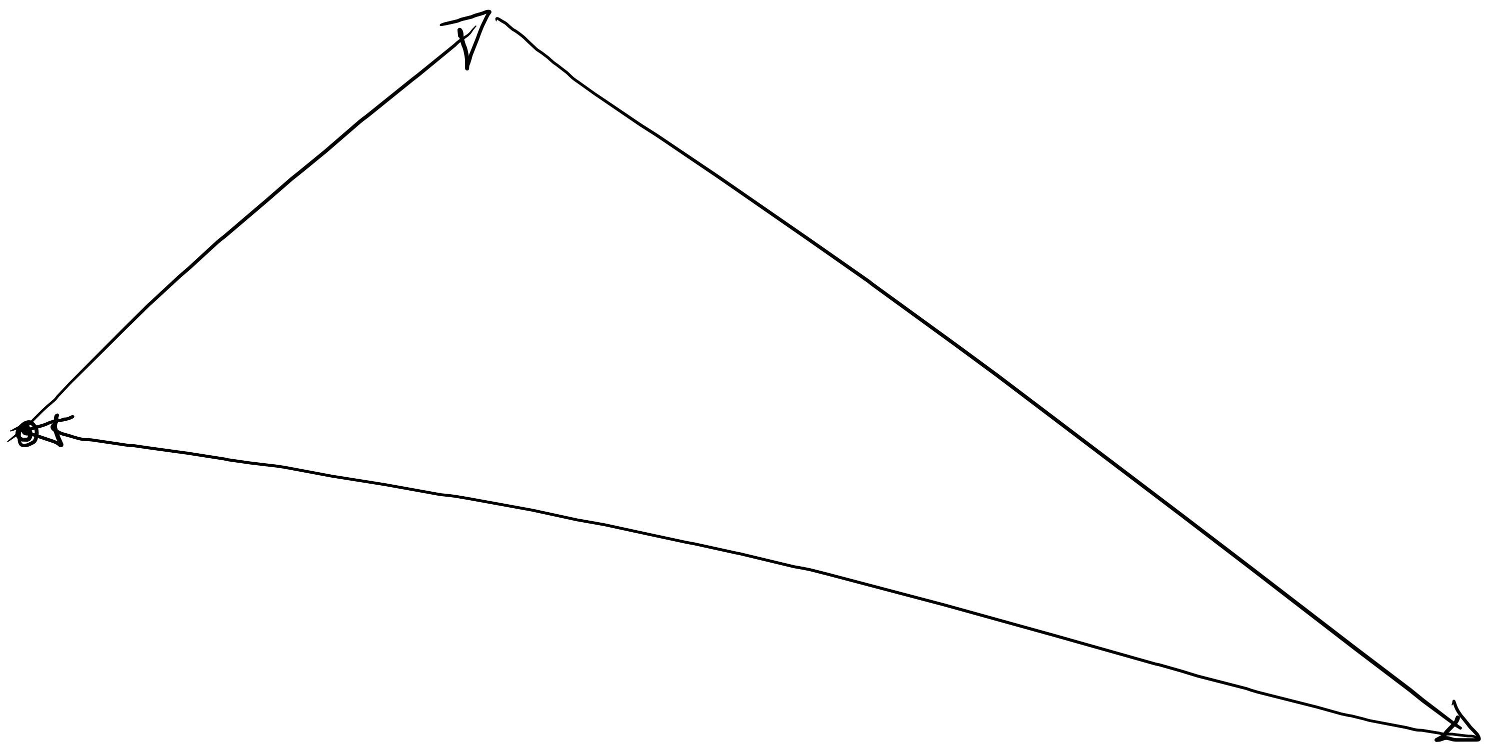


$\cdot\ \vec{0}$

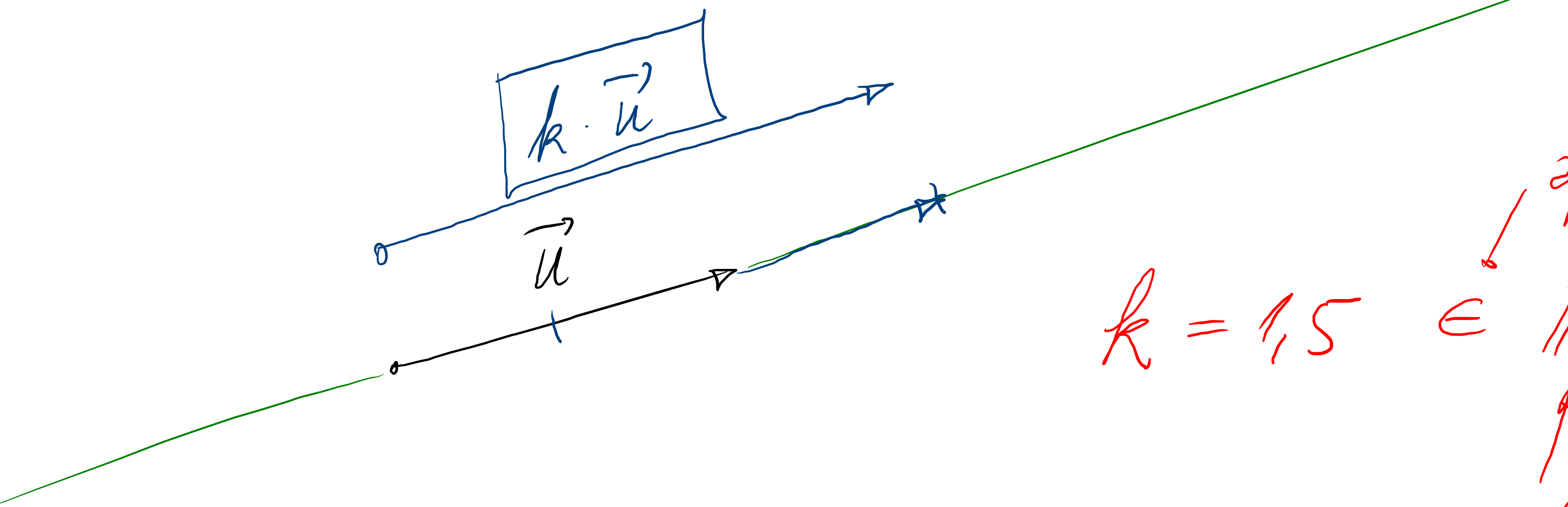
$\cdot\ \vec{0}$

$$\vec{a} + \vec{b} + \vec{c} = \vec{0}$$





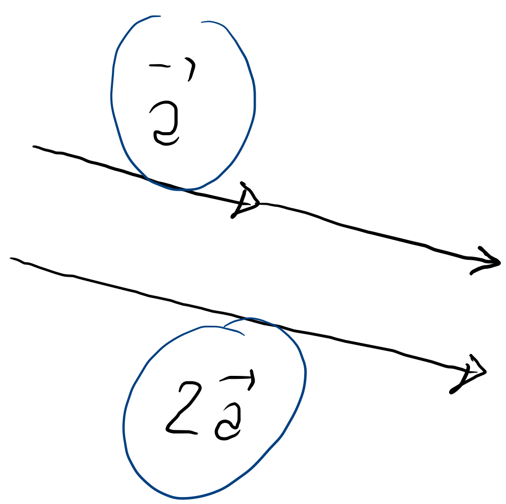
Multiplication par un nombre

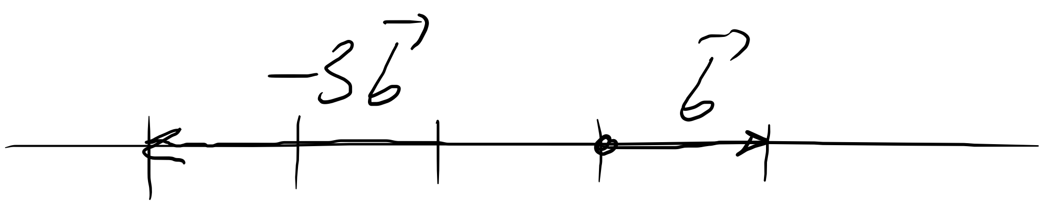


appartient à

$k = 1{,}5 \in \mathbb{R}$

tous les nombres

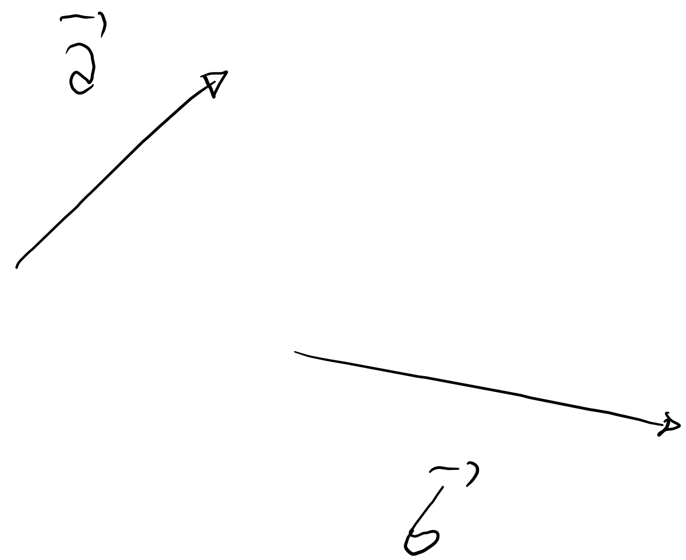


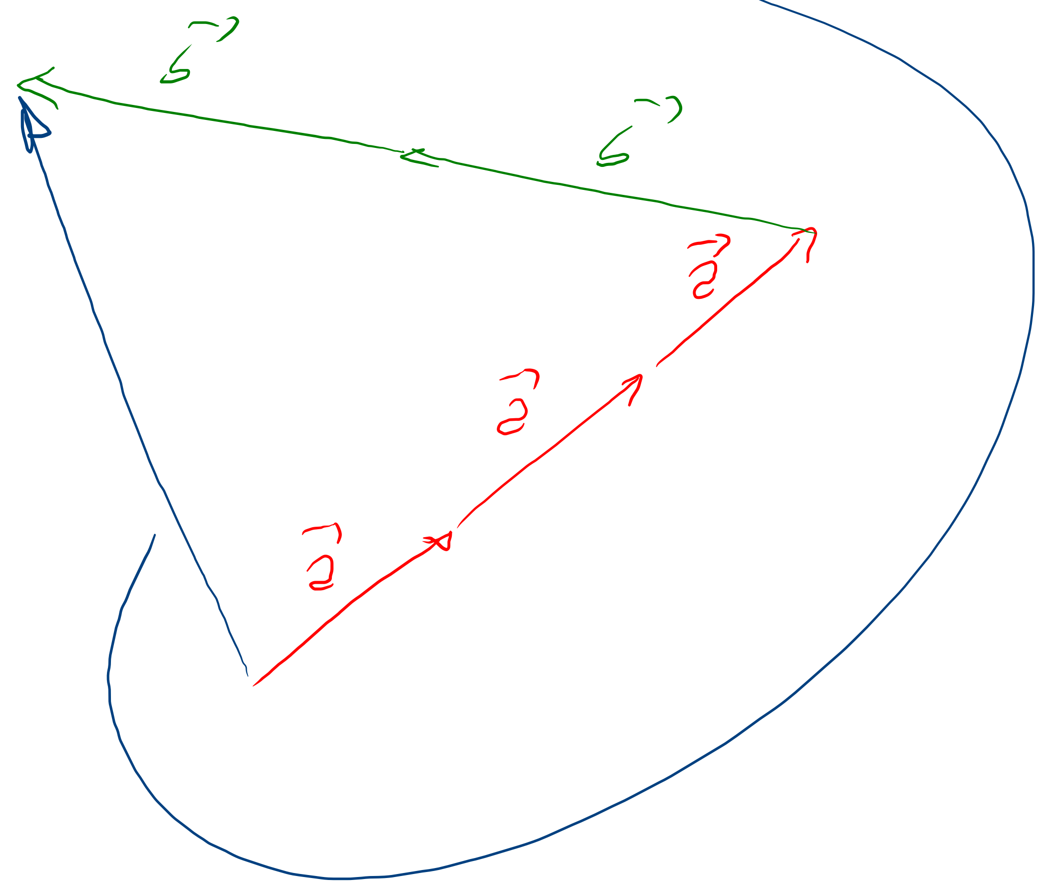


$\boxed{\text{Combinaison linéaire}}$

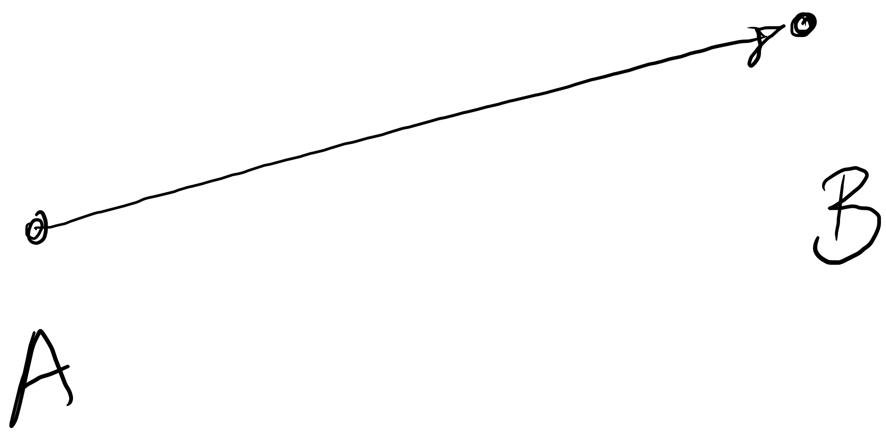
$\vec{a}$, $\vec{b}$ sont deux vecteurs

$\boxed{3\vec{a} - 2\vec{b}}$ est une combinaison linéaire de $\vec{a}$ et $\vec{b}$



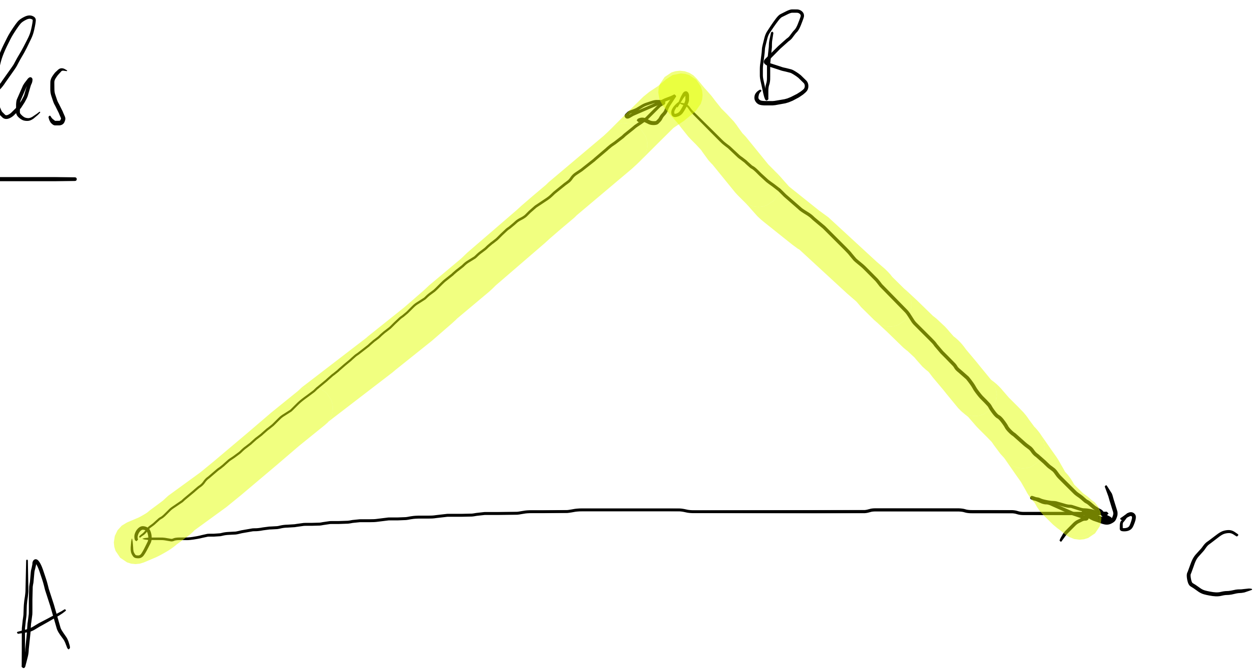


Vecteurs et points



2 points définissent un vecteur

Règles



$$\boxed{\overrightarrow{AB} + \overrightarrow{BC} = \overrightarrow{AC}}$$

$$\overrightarrow{AB} = -\overrightarrow{BA}$$

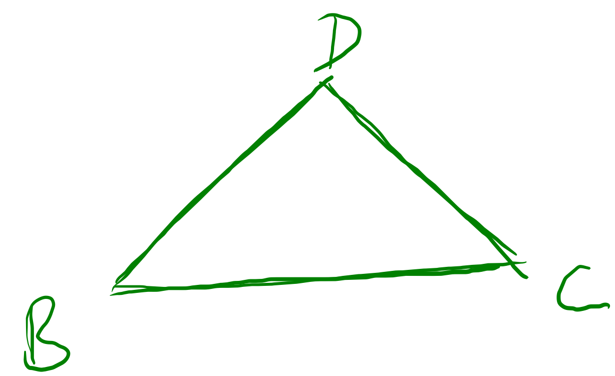
$$\overrightarrow{BA} = -\overrightarrow{AB}$$

$$\boxed{\overrightarrow{BD} + \overrightarrow{AB} + \overrightarrow{DC}}$$

$$\underbrace{\overrightarrow{BD} + \overrightarrow{DC}} + \overrightarrow{AB}$$

$$\overrightarrow{BC} + \overrightarrow{AB} = \overrightarrow{AB} + \overrightarrow{BC}$$

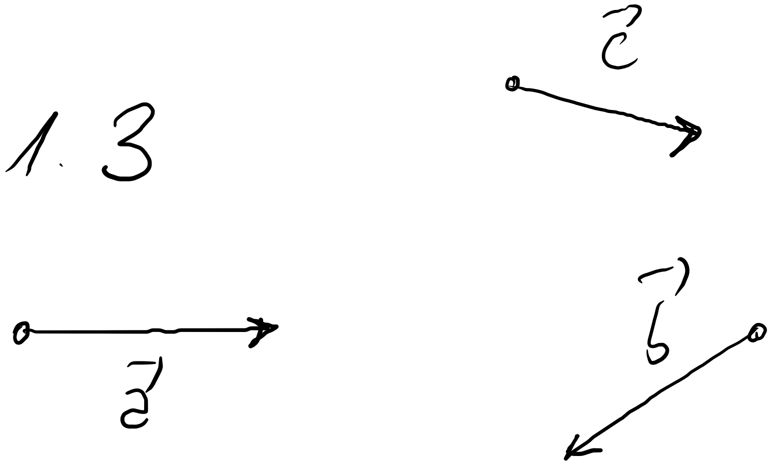
$$= \overrightarrow{AC}$$



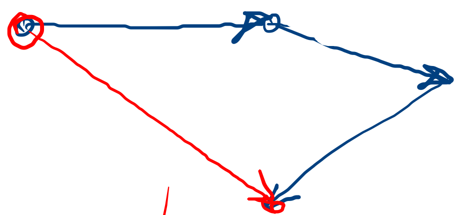
$$\overrightarrow{AC} - \overrightarrow{BD} - \overrightarrow{AB}$$

$$\overrightarrow{AC} + \overrightarrow{DB} + \overrightarrow{BA}$$

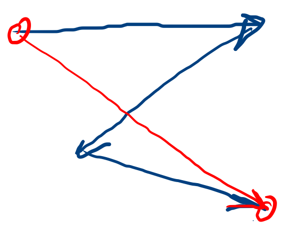
1.1.3

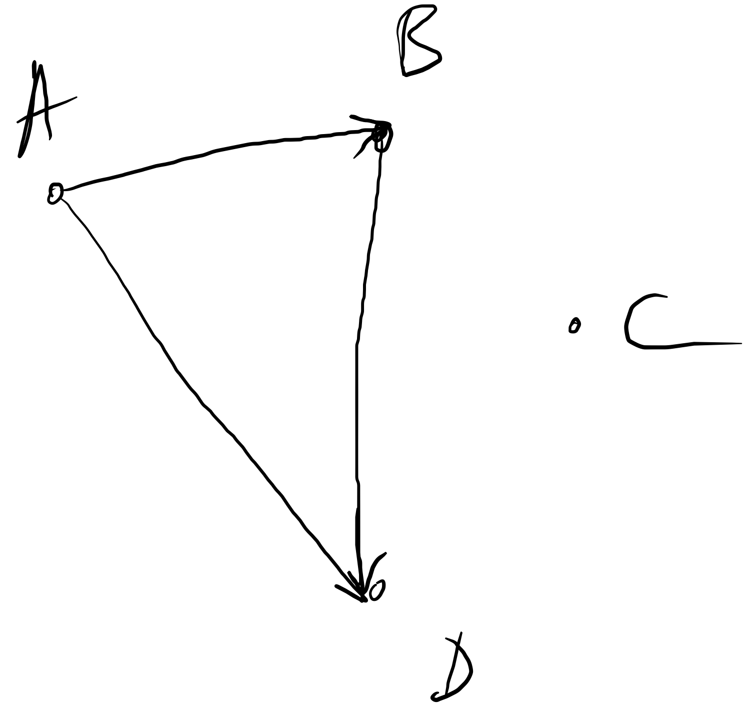


$\vec{a}+\vec{c}+\vec{b}$

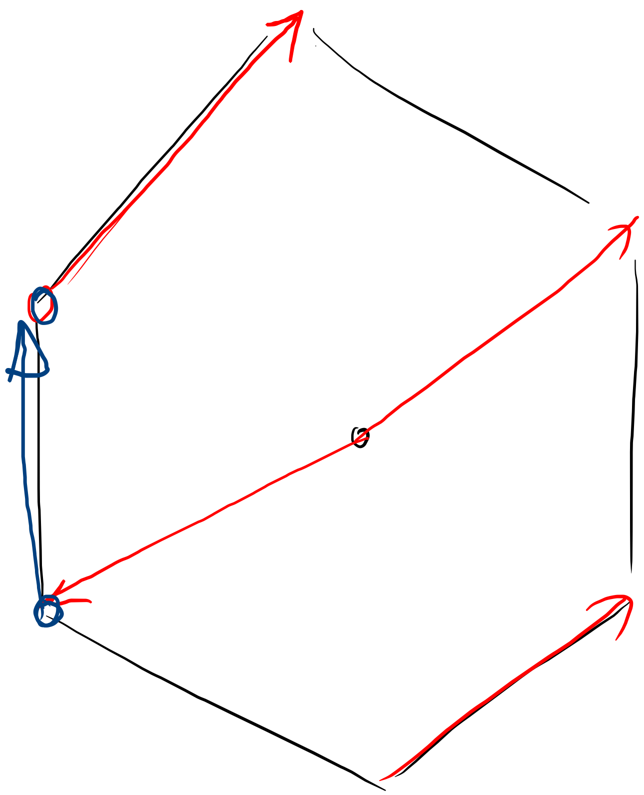


$$\boxed{\vec{a}+\vec{b}+\vec{c} = \vec{a}+\vec{c}+\vec{b}}$$





$$\overrightarrow{AB} + \overrightarrow{BD} = \overrightarrow{AD}$$

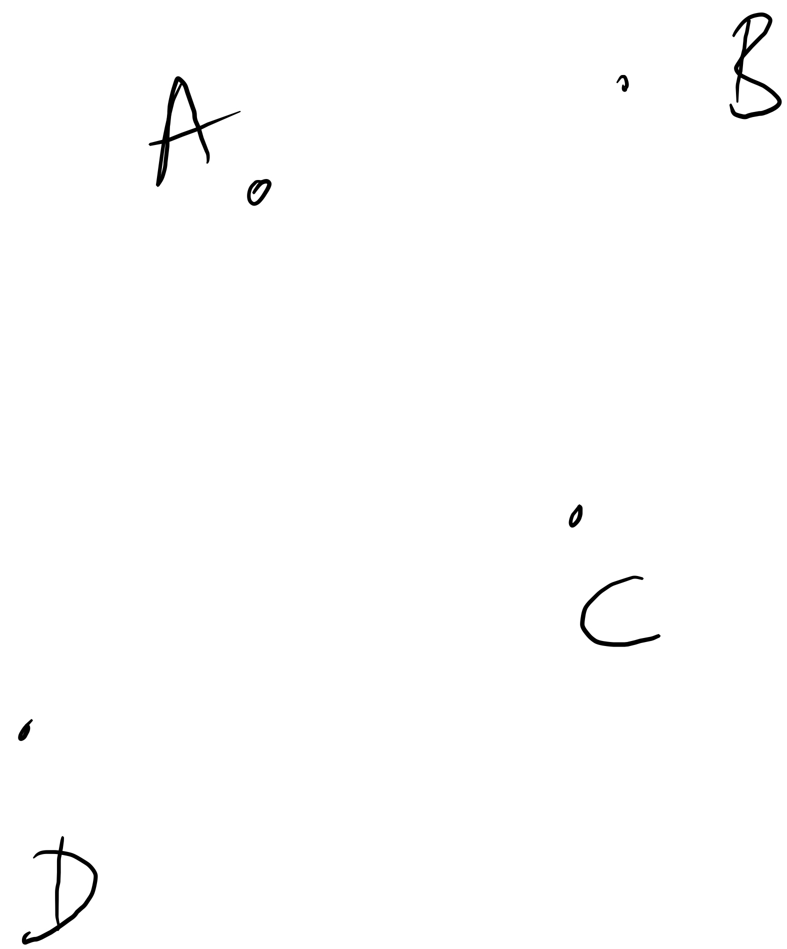


$$\vec{a} = \begin{pmatrix} 4 \\ 0 \end{pmatrix}$$

$$\vec{a} + \vec{b} = \begin{pmatrix} 4 + (-3) \\ 0 + (-2) \end{pmatrix}$$

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

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



$DE + DC$

$DC + DE$

1.1.4 Soit A, B, C, D et E des points quelconques. Sans utiliser de dessin, simplifier le plus possible les expressions suivantes :

a) $\overrightarrow{BD} + \overrightarrow{AB} + \overrightarrow{DC}$

b) $\overrightarrow{BC} + \overrightarrow{DE} + \overrightarrow{DC} + \overrightarrow{AD} + \overrightarrow{EB}$

c) $\overrightarrow{AC} - \overrightarrow{BD} - \overrightarrow{AB}$

d) $\overrightarrow{DA} - \overrightarrow{DB} - \overrightarrow{CD} - \overrightarrow{BC}$

e) $\overrightarrow{EC} - \overrightarrow{ED} + \overrightarrow{CB} - \overrightarrow{DB}$

b) $\overrightarrow{DE} + \overrightarrow{DC} + \overrightarrow{AD} + \underbrace{\overrightarrow{EB} + \overrightarrow{BC}}_{\overrightarrow{EC}} = \overrightarrow{DE} + \underbrace{\overrightarrow{AD} + \overrightarrow{DC}}_{\overrightarrow{AC}} + \overrightarrow{EC} = \overrightarrow{DE} + \overrightarrow{AC} + \overrightarrow{EC}$

2 trucs