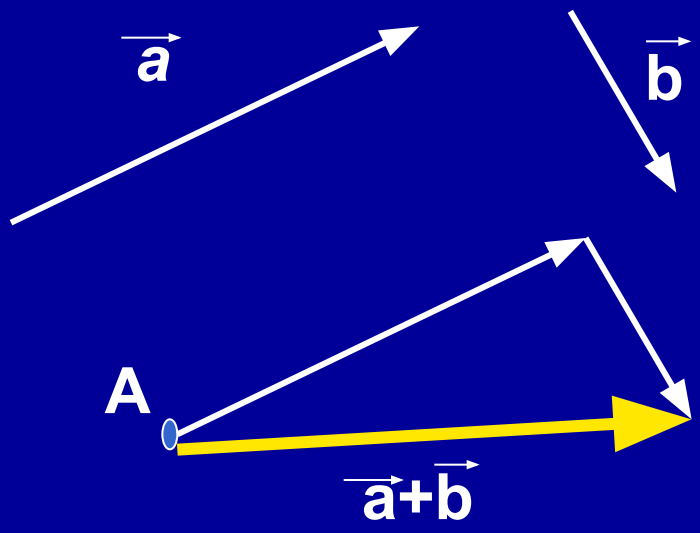
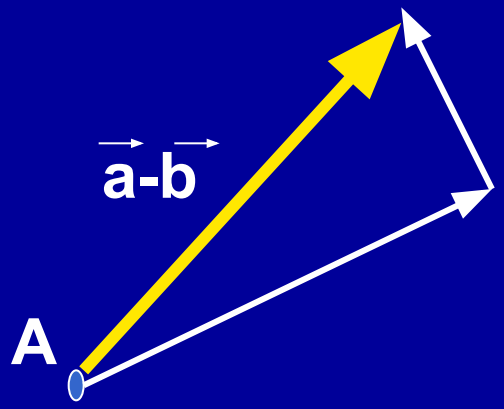
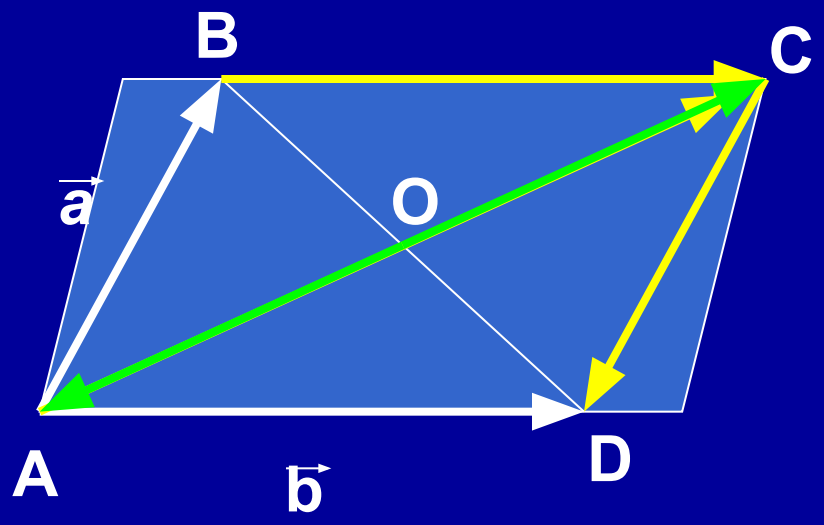
Сложение и вычитание векторов







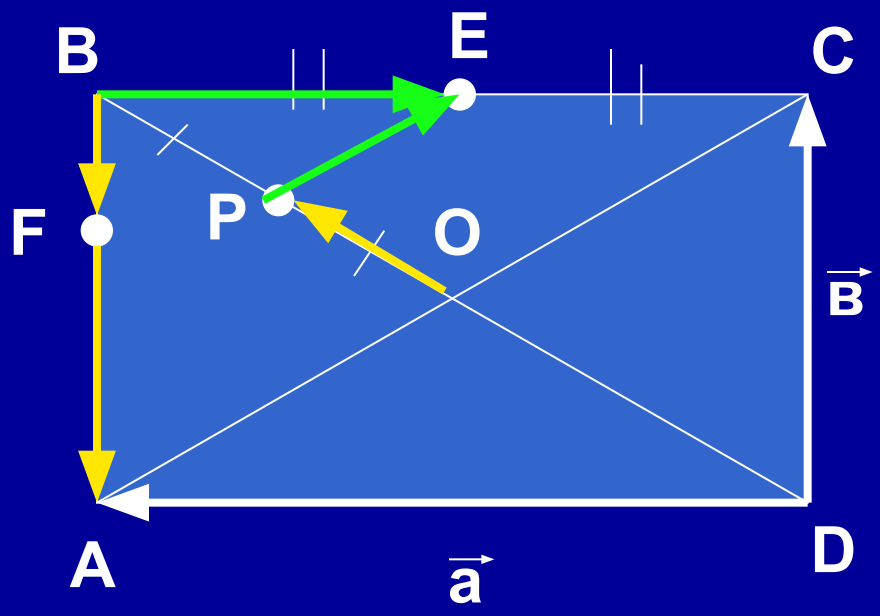
ABCD - параллелограмм

$\overrightarrow{BC} = \vec{b}$ $\overrightarrow{CD} = -\vec{a}$

$\overrightarrow{AC} = \vec{a} + \vec{b}$

$\overrightarrow{OC} = 1/2\,(\vec{a} + \vec{b})$

$\overrightarrow{OA} = -1/2\,(\vec{a} + \vec{b})$



$\overrightarrow{AF}/\overrightarrow{FB}=3/2$

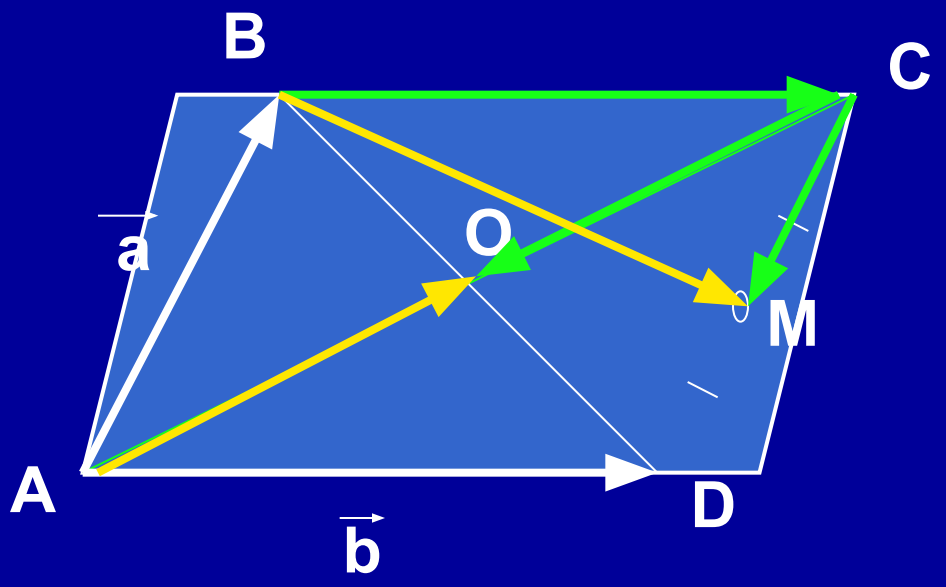
$\overrightarrow{BE}= -1/2\vec{a}$

$\overrightarrow{BF}= -2/5\ \vec{в}$

$\overrightarrow{OP}= 1/4\ (\vec{a}+\vec{в})$

$\overrightarrow{PE}= 1/4\ (\vec{a}-\vec{в})$

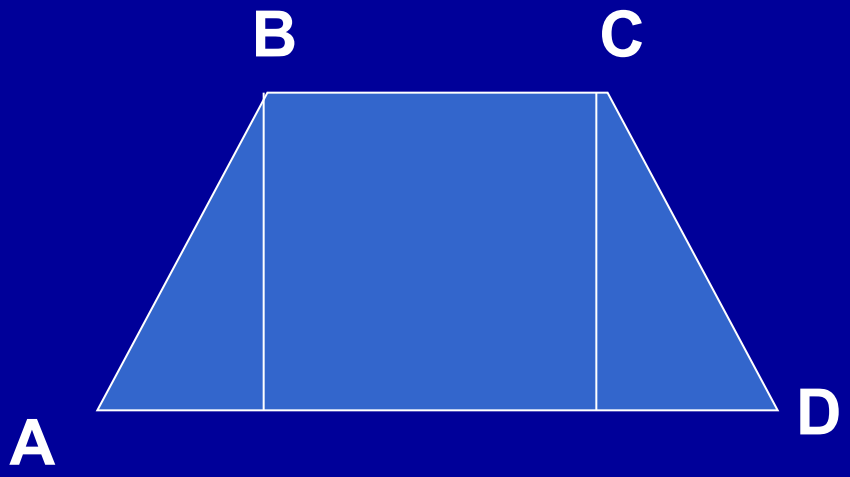
$\overrightarrow{FA}= -3/5\vec{в}$



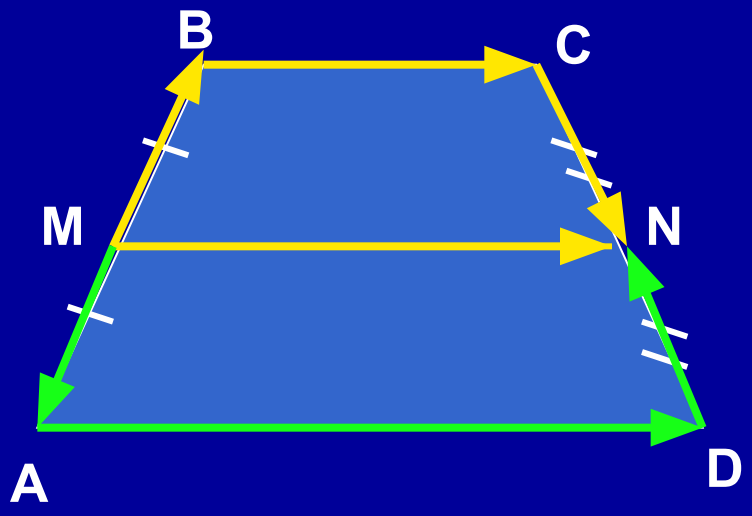
$\overrightarrow{AO} = \frac{1}{2}(\vec{a} + \vec{b})$

$\overrightarrow{CO} = -\frac{1}{2}(\vec{a} + \vec{b})$

$\overrightarrow{BM} = \vec{b} - \frac{1}{2}\vec{a}$



Средняя линия трапеции



$MN \parallel AD$ $MN=(AD+BC):2$

$\overrightarrow{MN}=\overrightarrow{MB}+\overrightarrow{BC}+\overrightarrow{CN}$ $\overrightarrow{MN}=\overrightarrow{MA}+\overrightarrow{AD}+\overrightarrow{DN}$

$2\overrightarrow{MN}=(\overrightarrow{MB}+\overrightarrow{MA})+(\overrightarrow{BC}+\overrightarrow{AD})+(\overrightarrow{CN}+\overrightarrow{DN})$

$\overrightarrow{MB}+\overrightarrow{MA}=\vec{0}$ $\overrightarrow{CN}+\overrightarrow{DN}=\vec{0}$