

Векторы

9 класс



AB



AB

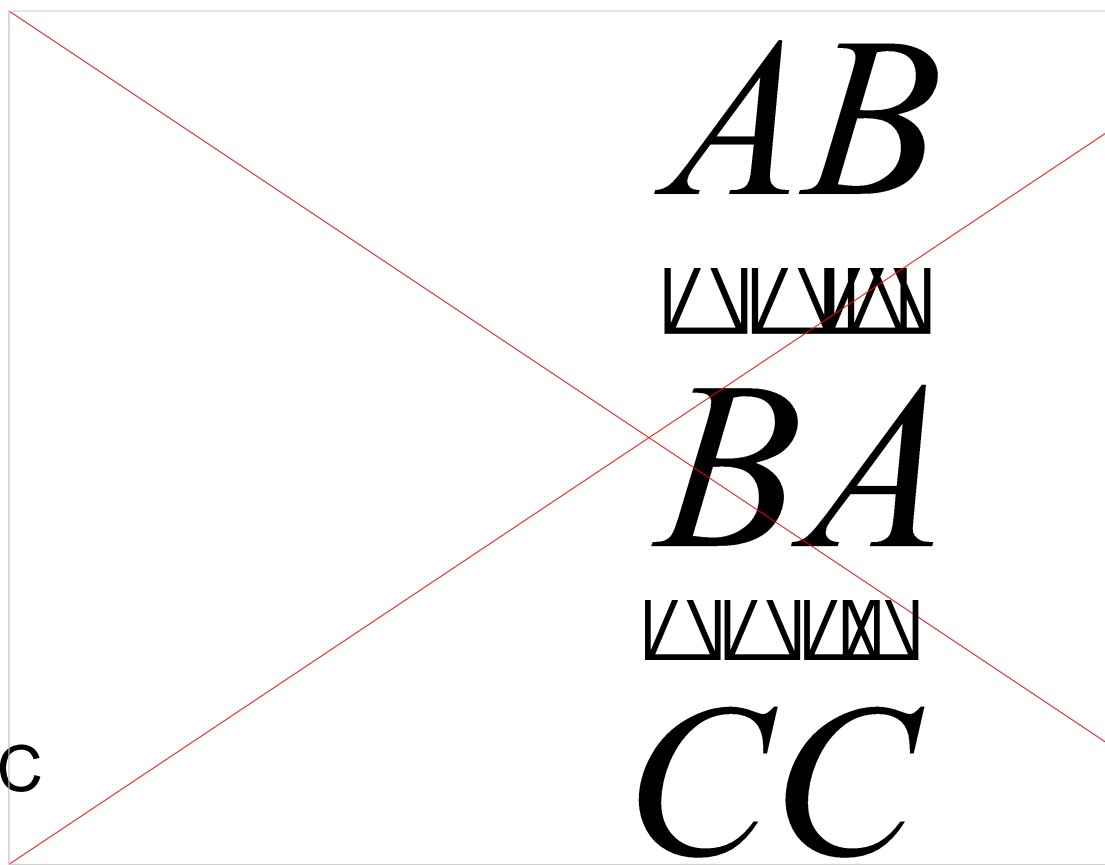


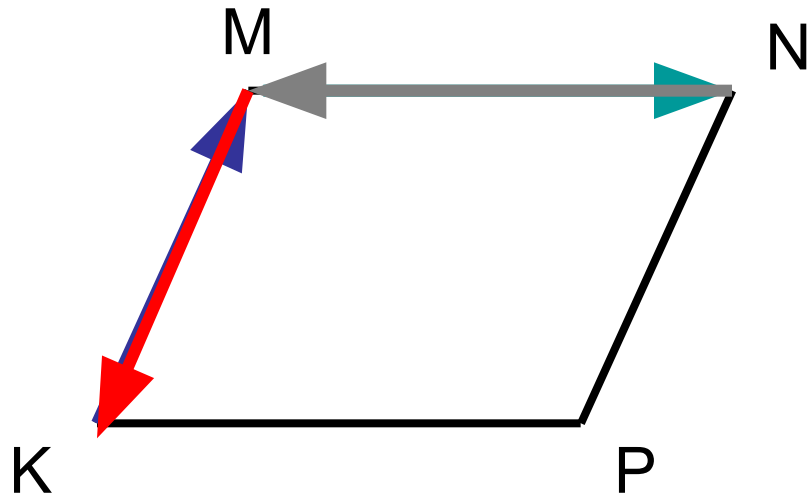
BA



CC

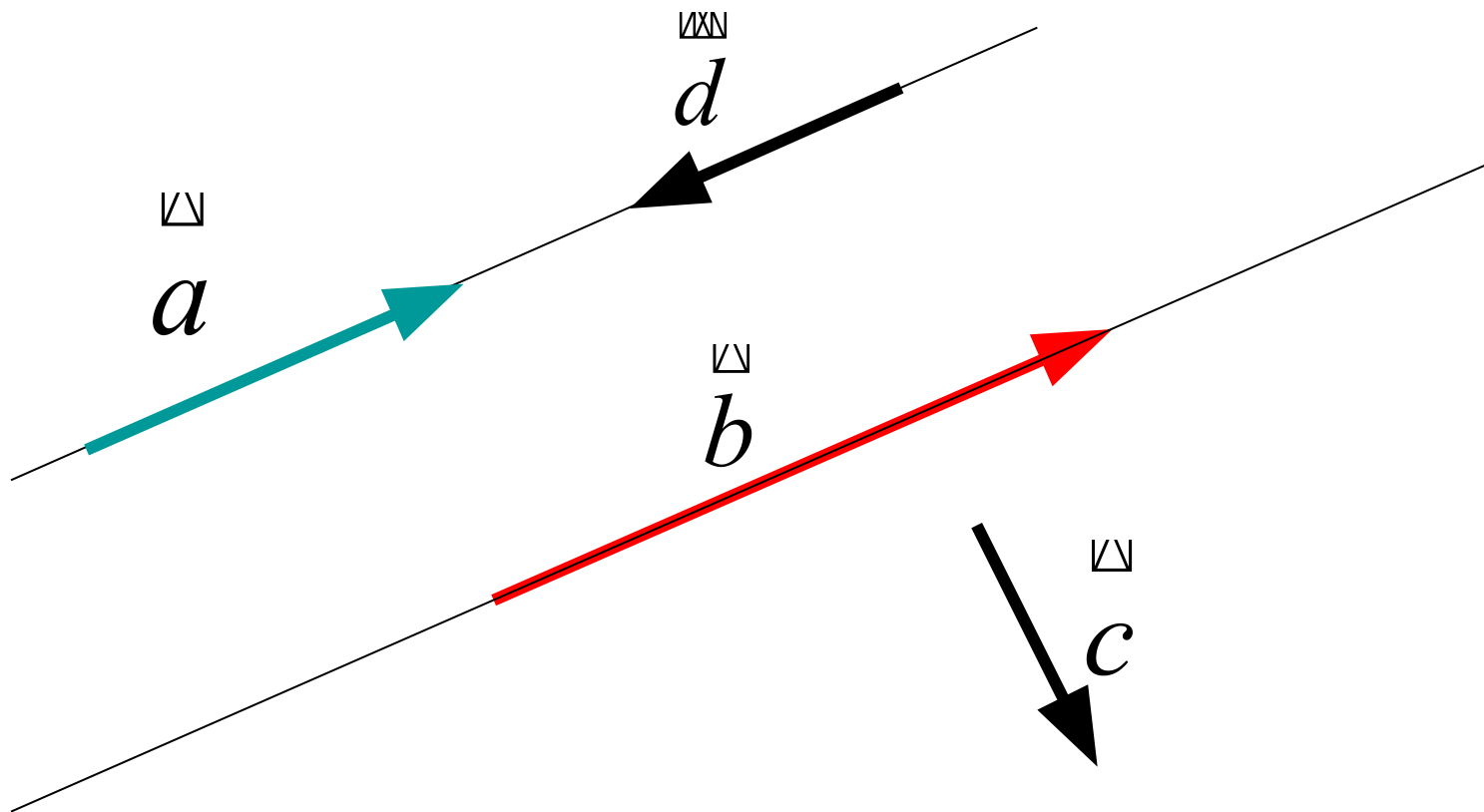
C



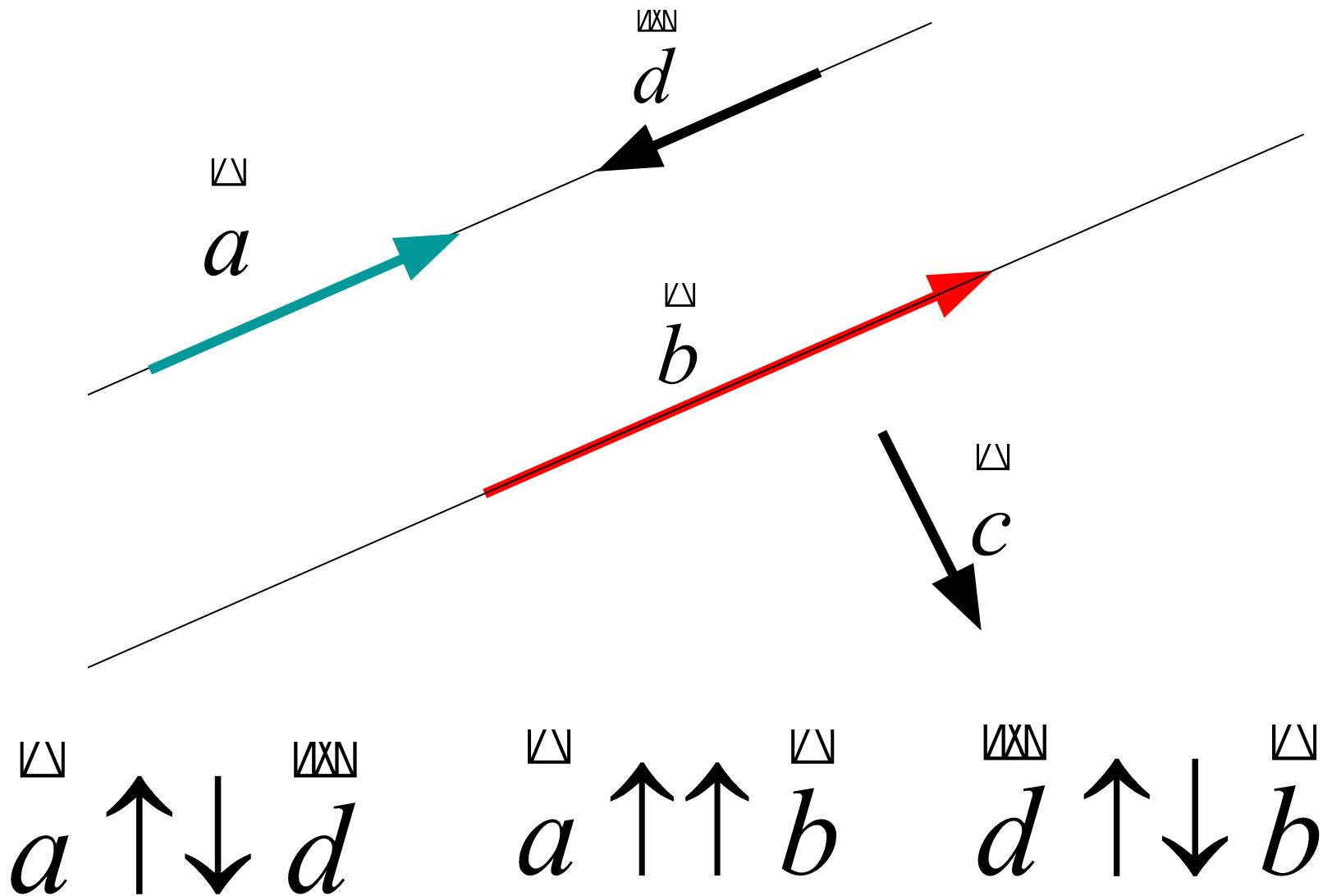


$$\overline{KM} = \overline{MK}$$

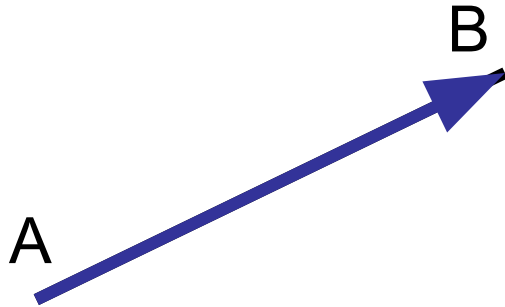
Коллинеарные вектора



Коллинеарные векторы



Длина (модуль) вектора



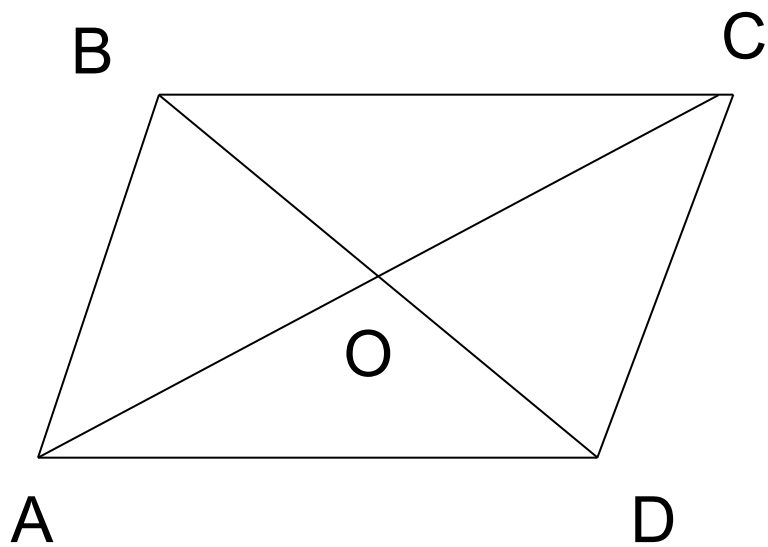
$$AB=15 \text{ см}$$

$$\left| \overline{AB} \right| = AB$$

$$\left| \overline{AB} \right| = 15 \text{ см}$$



$$\left| \overline{MM} \right| = 0$$



$$AB = 5$$

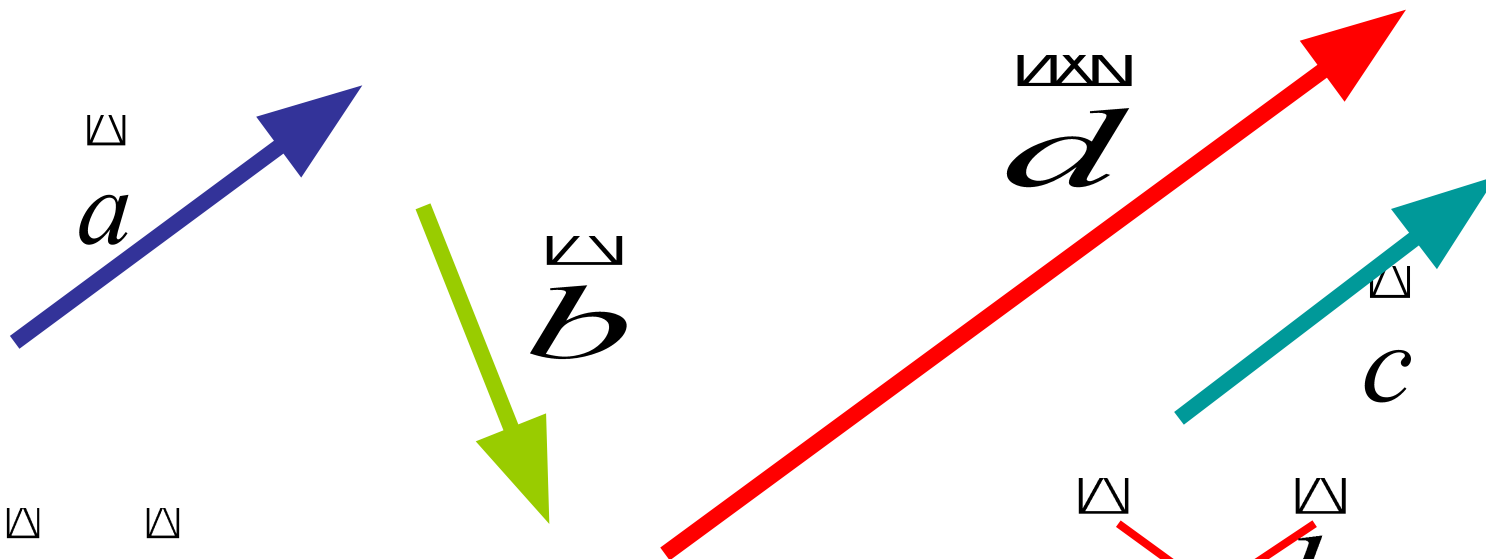
$$CD = 8$$

$$AC = 12$$

$\begin{array}{ c } \hline \text{▤▤▤▤} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▤▤▤▤} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline AB \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▥▥▥▥} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▥▥▥▥} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline BC \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▦▦▦▦} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▦▦▦▦} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline AC \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▧▧▧▧} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▧▧▧▧} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline AO \\ \hline \end{array}$				

$\begin{array}{ c } \hline \text{▤▤▤▤} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▤▤▤▤} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline CD \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▥▥▥▥} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▥▥▥▥} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline DA \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▦▦▦▦} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▦▦▦▦} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline BD \\ \hline \end{array}$				
$\begin{array}{ c } \hline \text{▧▧▧▧} \\ \hline \end{array}$	-	$\begin{array}{ c } \hline \text{▧▧▧▧} \\ \hline \end{array}$	-	?
$\begin{array}{ c } \hline OD \\ \hline \end{array}$				

Векторы называются равными, если они сонаправлены и их длины равны



$$\square a = \square c$$

$$1) \begin{array}{c} \square \\ \square \end{array} a \uparrow \uparrow \begin{array}{c} \square \\ \square \end{array} c$$

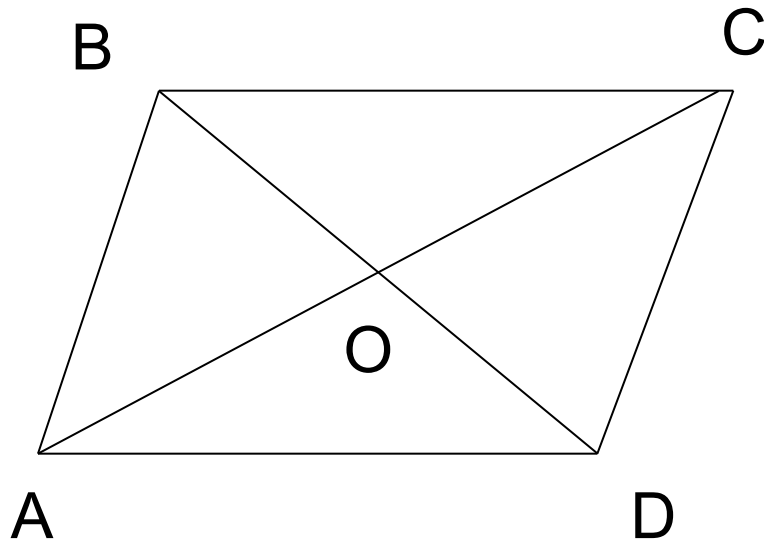
$$2) \begin{array}{c} \square \\ | \end{array} a = \begin{array}{c} \square \\ | \end{array} c$$

~~$$\square a = \square b$$~~

~~$$\square a = \square d$$~~

$$a = c$$

Равны ли векторы?

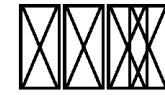


AB

и

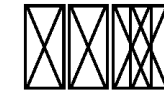


BC

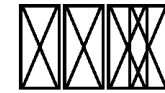


BC

и

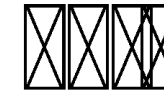


DA

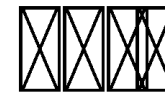


BC

и



AD

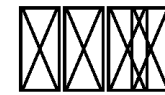


AO

и

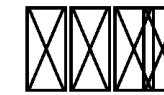


OB



BO

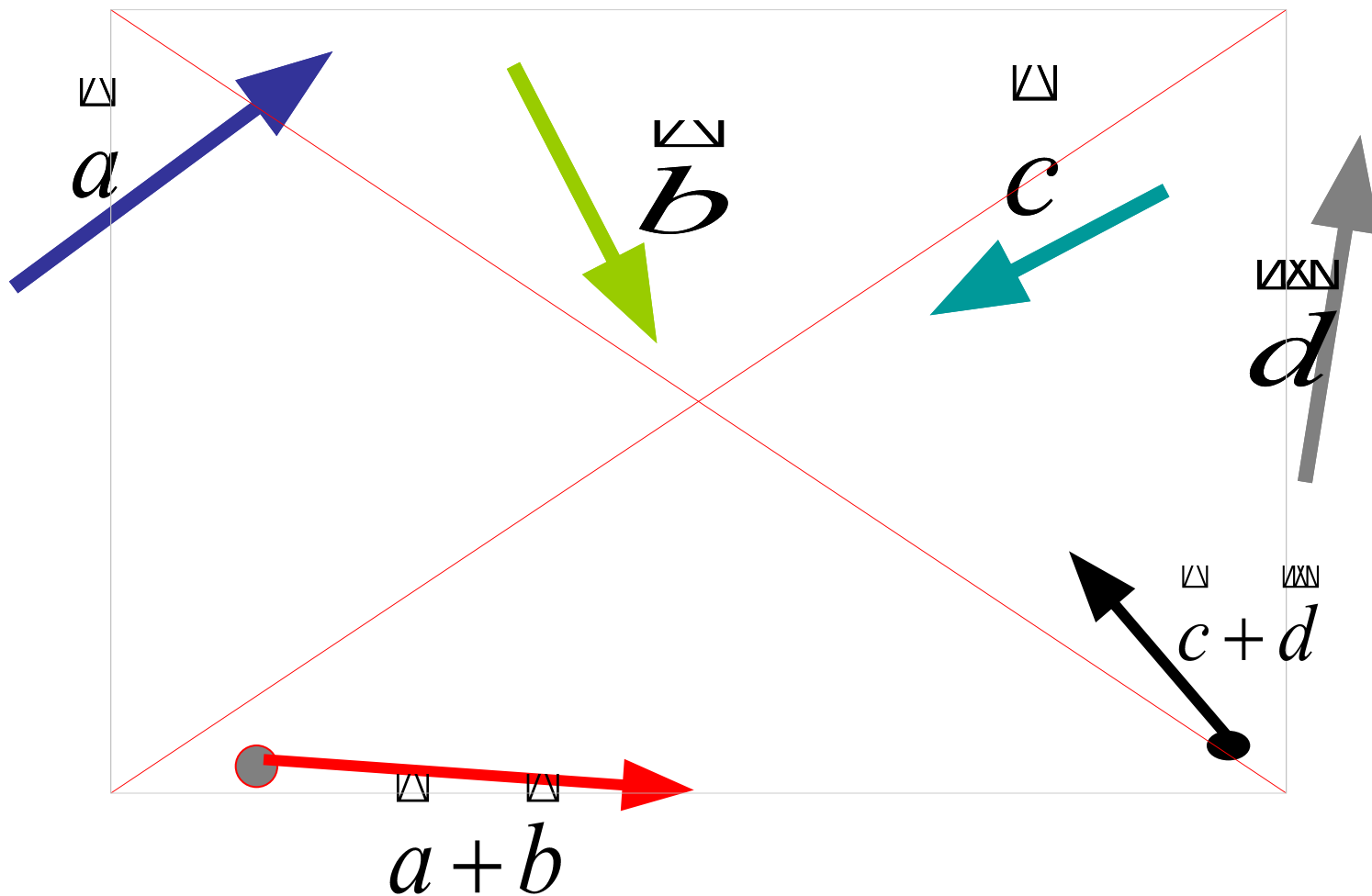
и



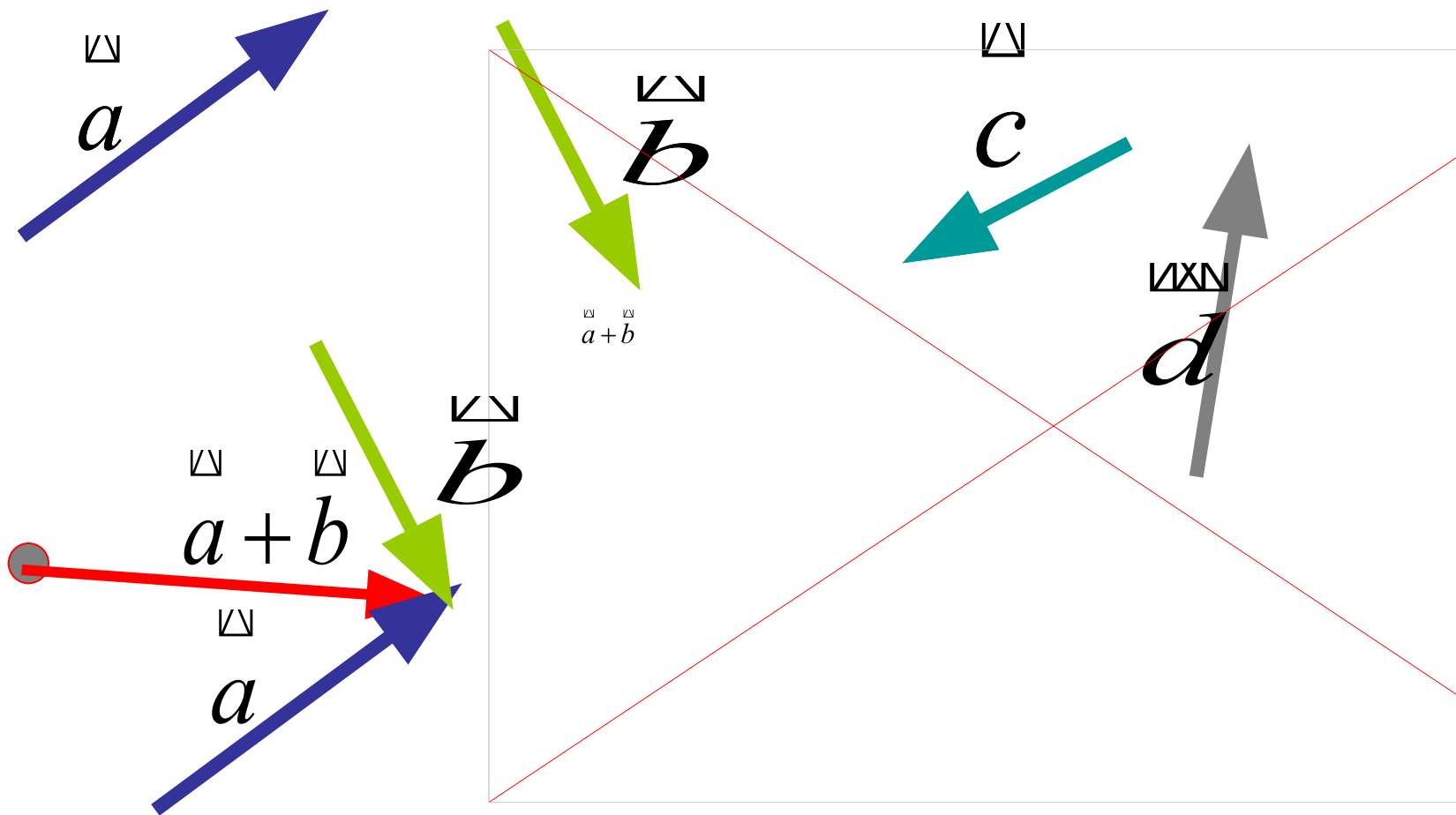
OD



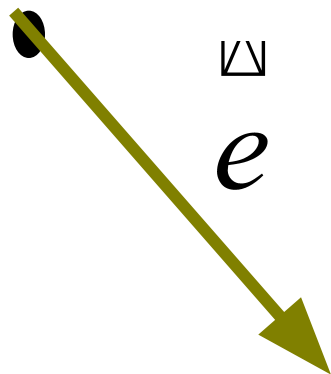
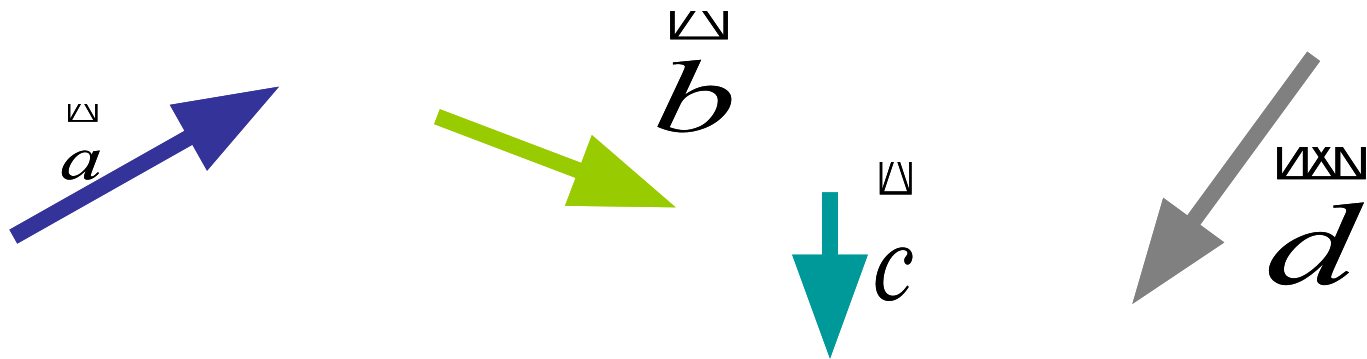
Сложение векторов. Правило треугольника



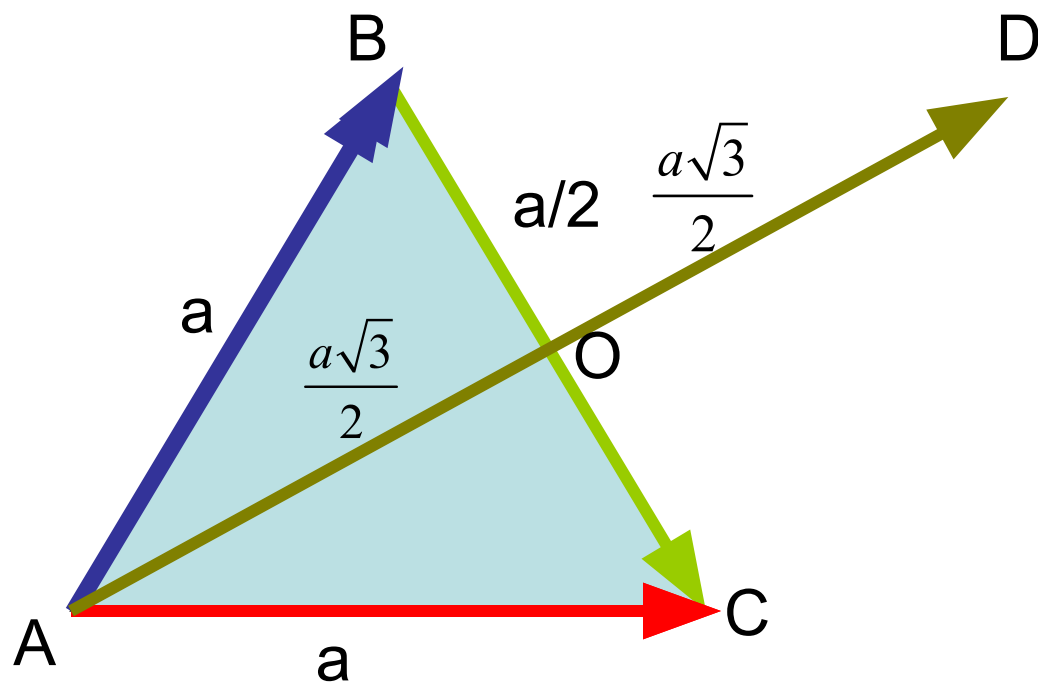
Сложение векторов. Правило параллелограмма



Сложение векторов. Правило многоугольника



$$\vec{a} + \vec{b} + \vec{c} + \vec{d} = \vec{e}$$



$AB=BC=AC=a$

$$\left| \begin{array}{cc} \begin{array}{c} \diagup \diagdown \diagup \diagdown \\ \diagdown \diagup \diagdown \diagup \end{array} & \begin{array}{c} \diagup \diagdown \diagup \diagdown \\ \diagdown \diagup \diagdown \diagup \end{array} \\ AB + BC & = \\ \begin{array}{c} \diagdown \diagup \diagdown \diagup \\ \diagup \diagdown \diagup \diagdown \end{array} & \begin{array}{c} \diagdown \diagup \diagdown \diagup \\ \diagup \diagdown \diagup \diagdown \end{array} \\ AB + CB & = \end{array} \right|$$