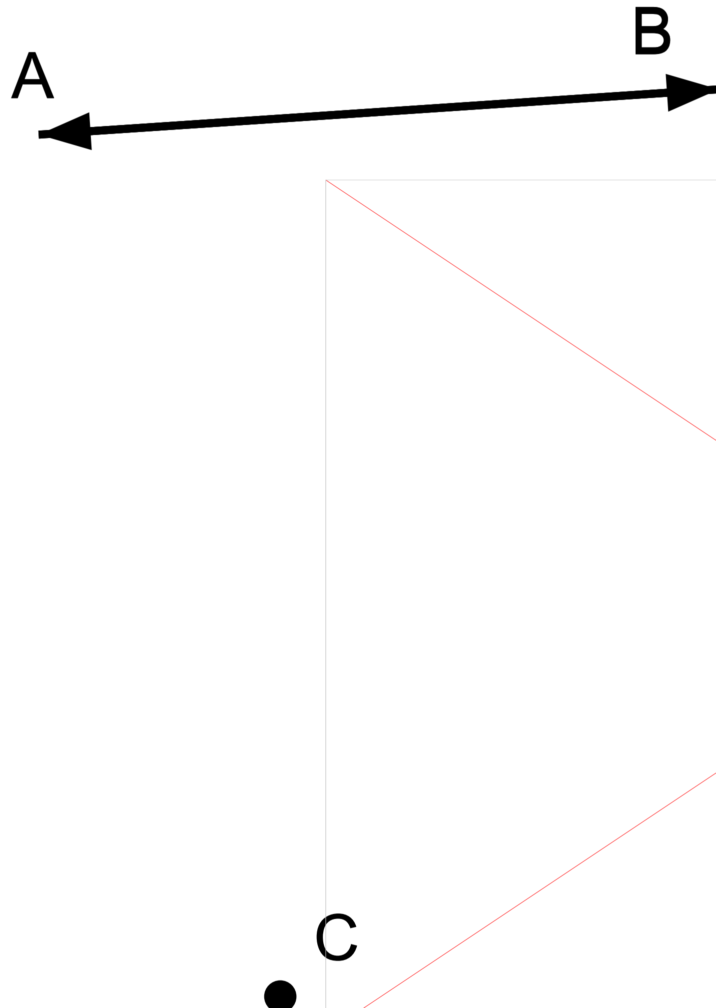
Векторы

9 класс

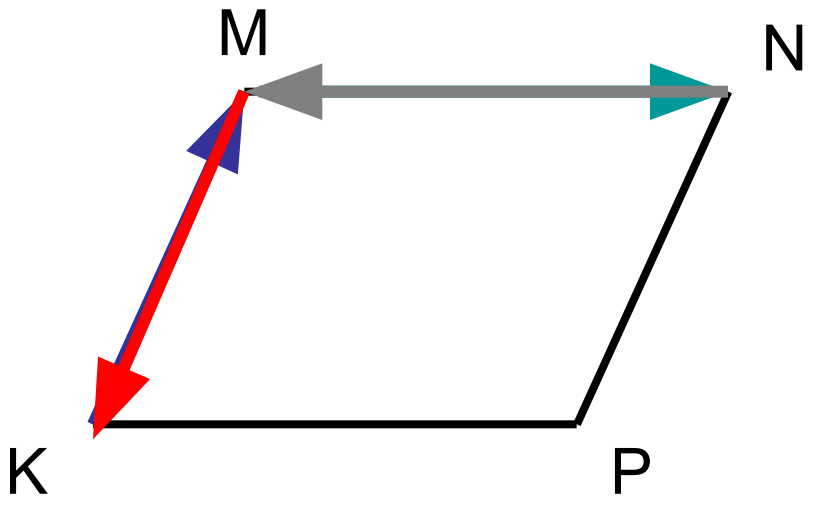


AB

AB

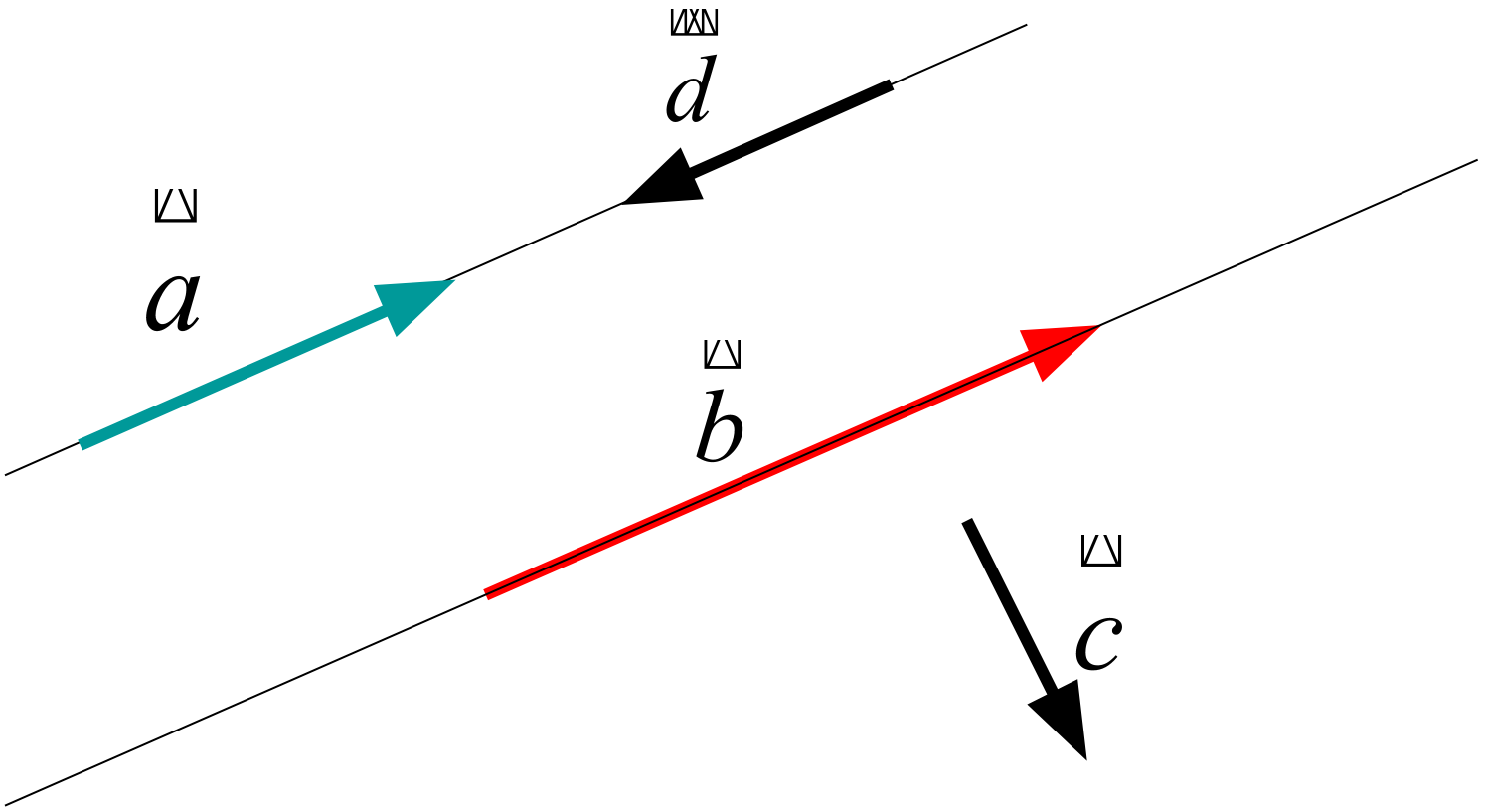
BA

CC

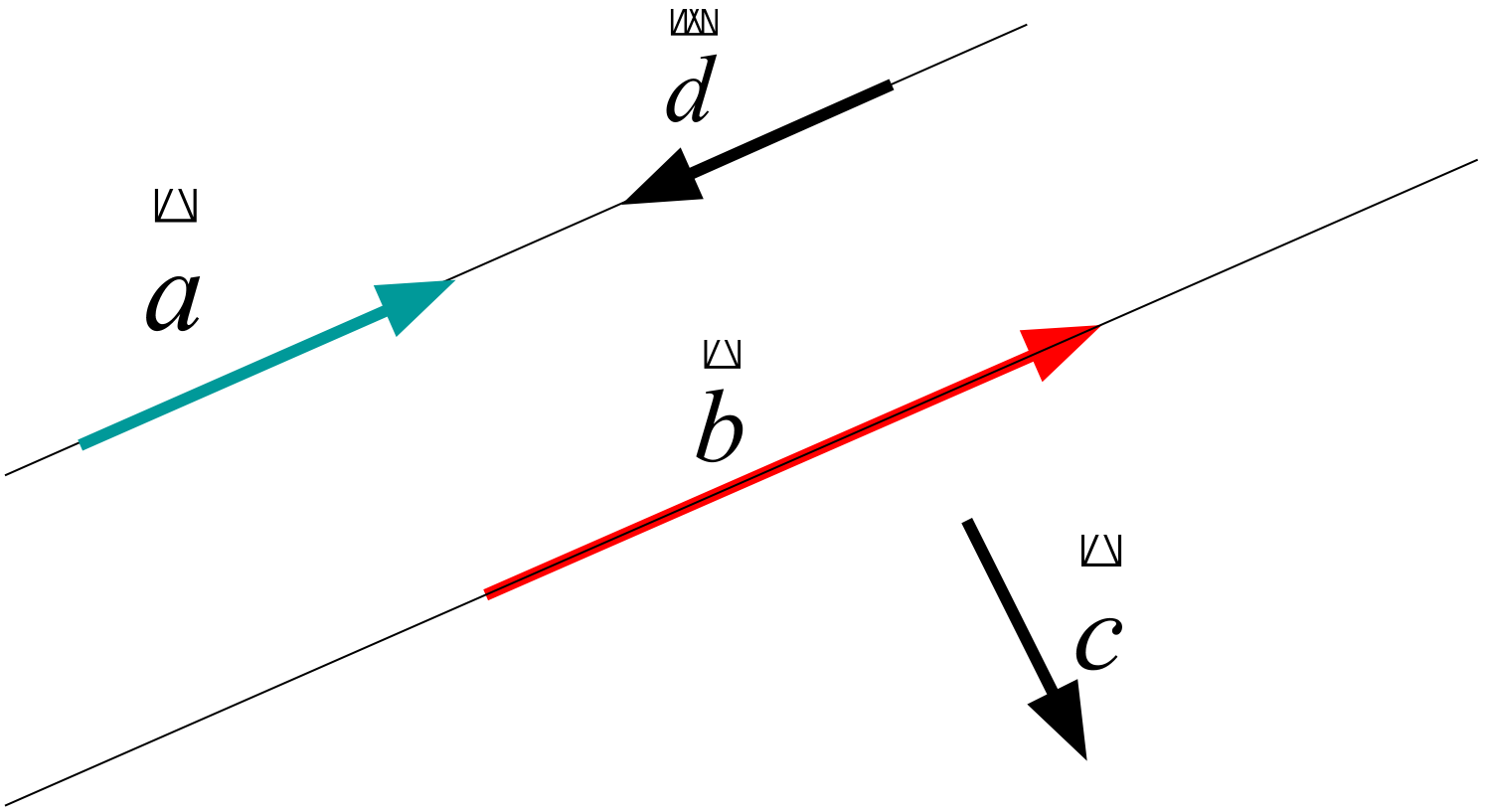


$$\overrightarrow{KM} \stackrel{?}{=} \overrightarrow{MK}$$

Коллинеарные вектора

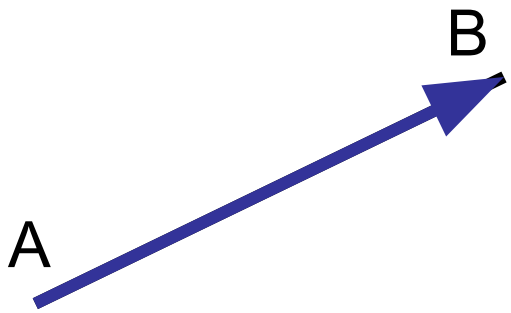


Коллинеарные векторы



$\vec{a} \uparrow\downarrow \vec{d}$ $\vec{a} \uparrow\uparrow \vec{b}$ $\vec{d} \uparrow\downarrow \vec{b}$

Длина (модуль) вектора

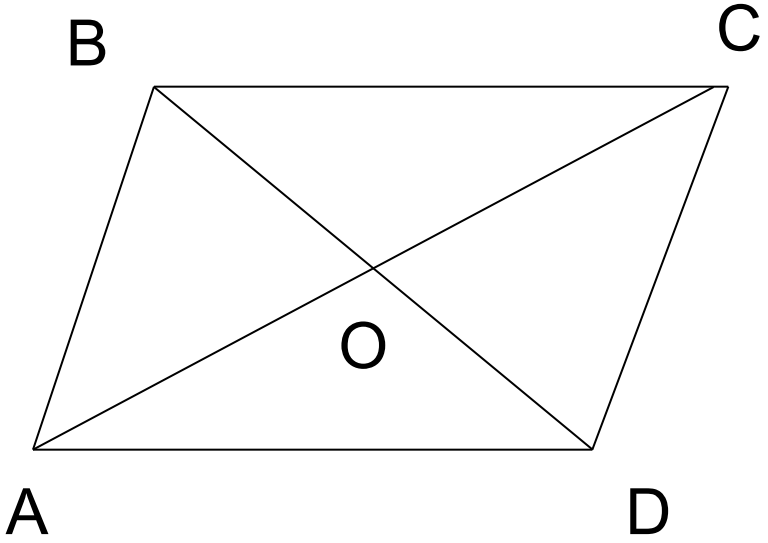


AB=15 см

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

$$\left|\overrightarrow{AB}\right| = 15\ см$$

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



$$AB = 5$$

$$CD = 8$$

$$AC = 12$$

$$|AB| - ?$$

$$|CD| - ?$$

$$|BC| - ?$$

$$|DA| - ?$$

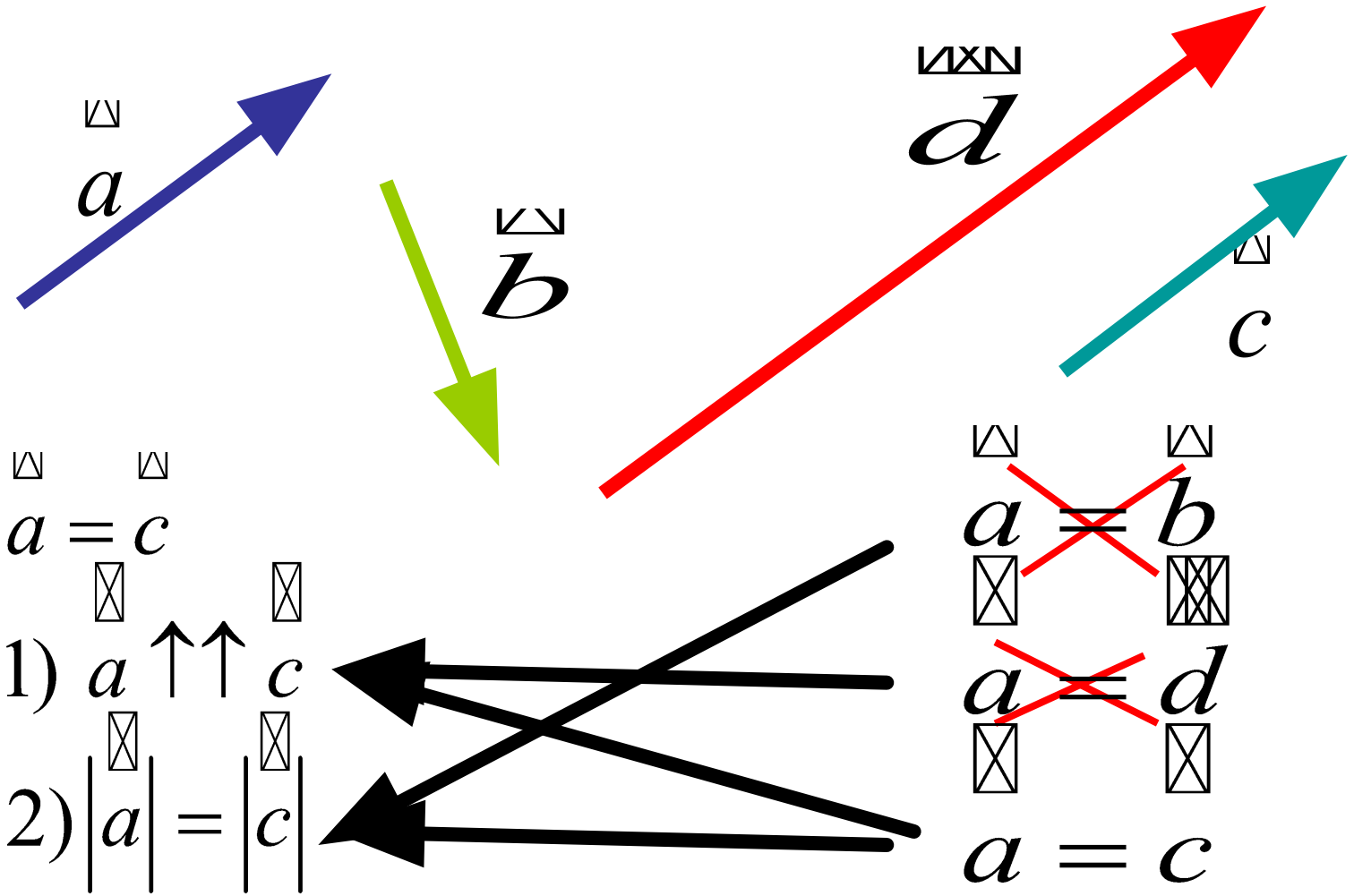
$$|AC| - ?$$

$$|BD| - ?$$

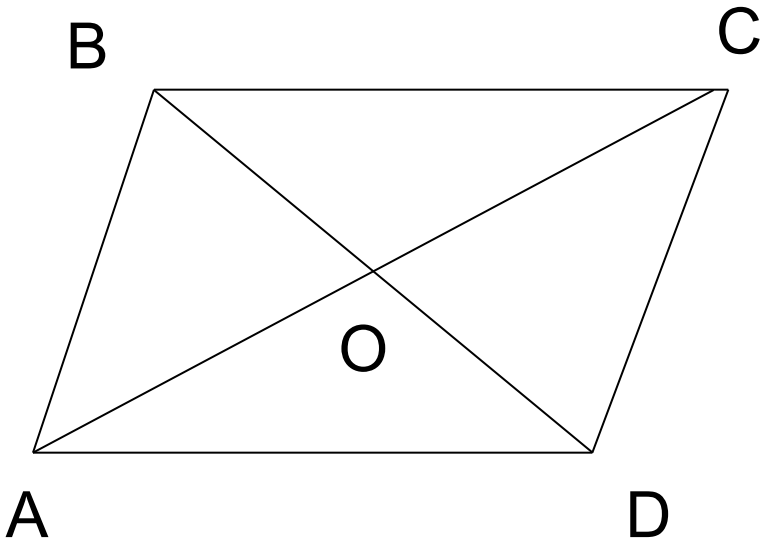
$$|AO| - ?$$

$$|OD| - ?$$

Векторы называются равными, если они сонаправлены и их длины равны



Равны ли векторы?



$\overrightarrow{AB}$ и $\overrightarrow{BC}$ —

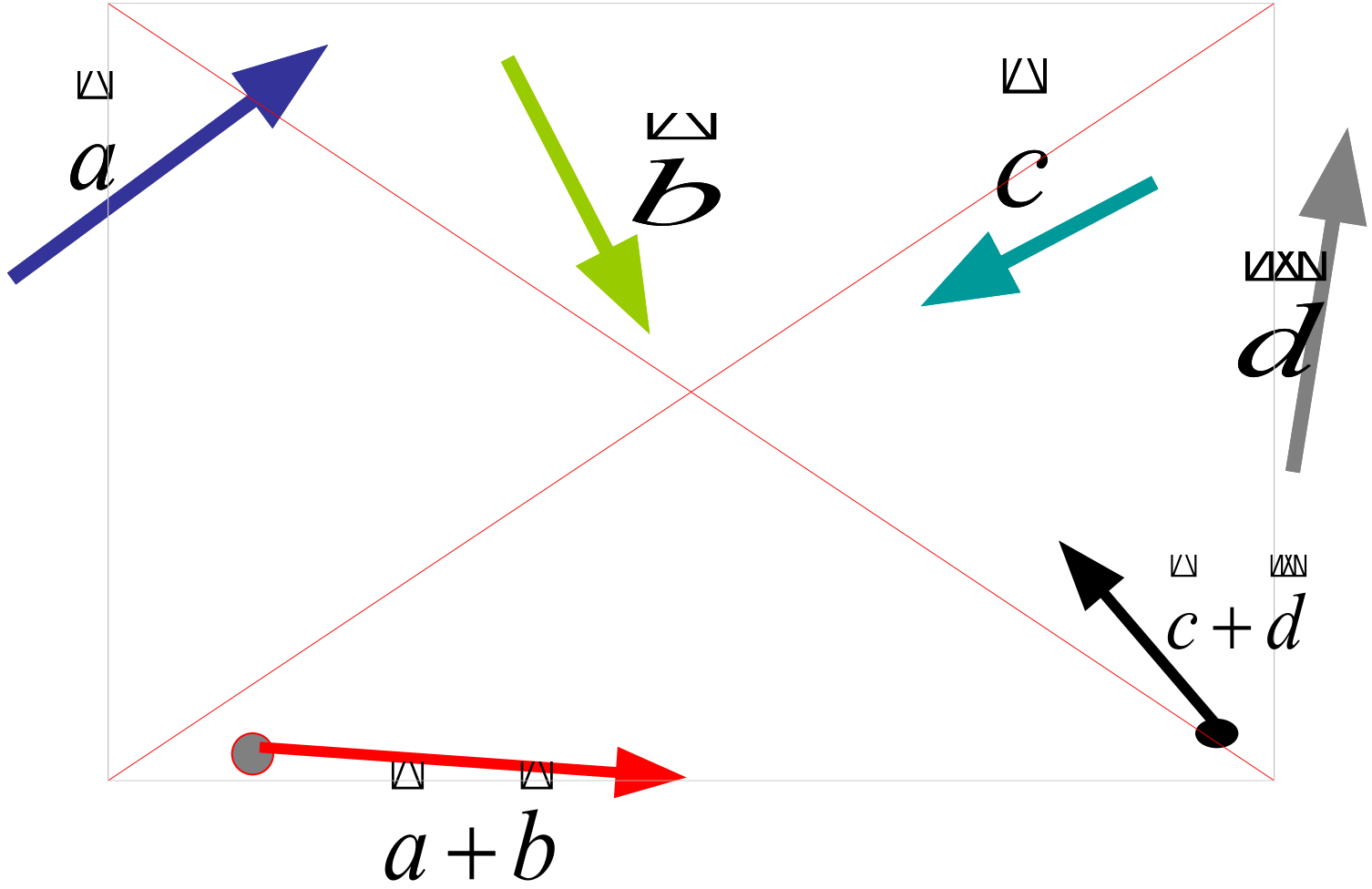
$\overrightarrow{BC}$ и $\overrightarrow{DA}$ —

$\overrightarrow{BC}$ и $\overrightarrow{AD}$ +

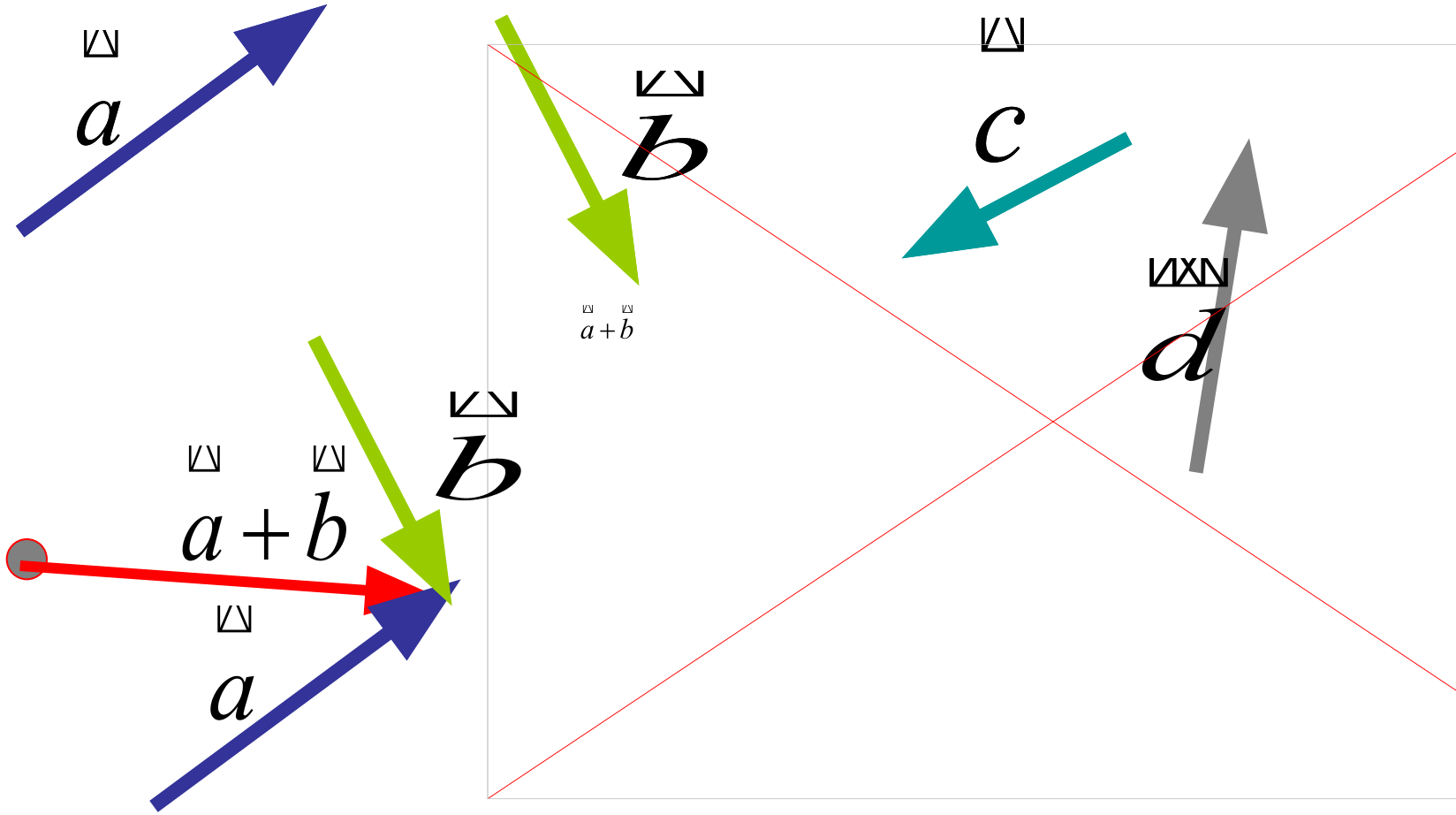
$\overrightarrow{AO}$ и $\overrightarrow{OB}$ —

$\overrightarrow{BO}$ и $\overrightarrow{OD}$ +

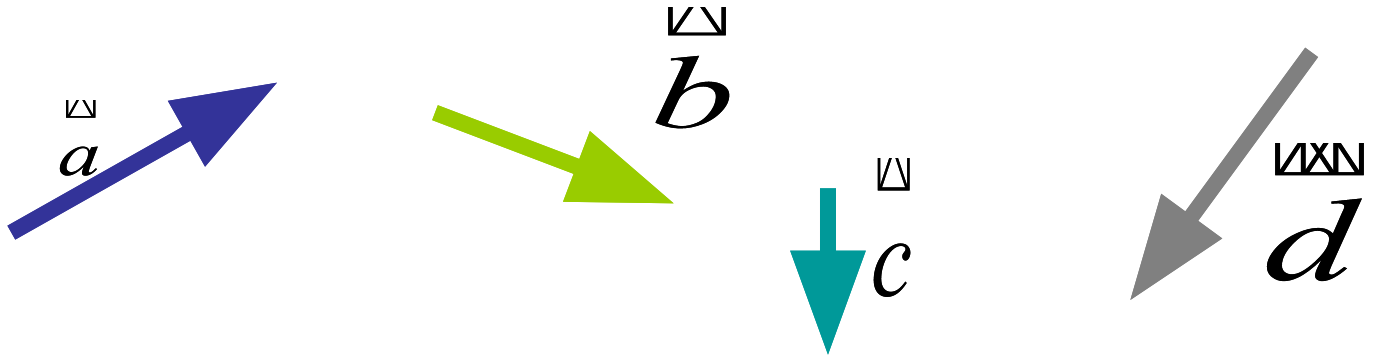
Сложение векторов. Правило треугольника

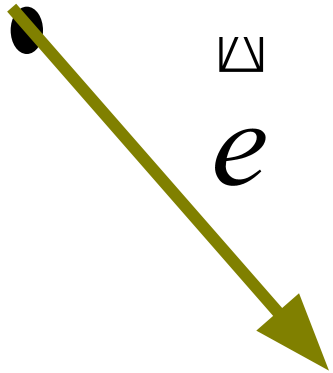


Сложение векторов. Правило параллелограмма

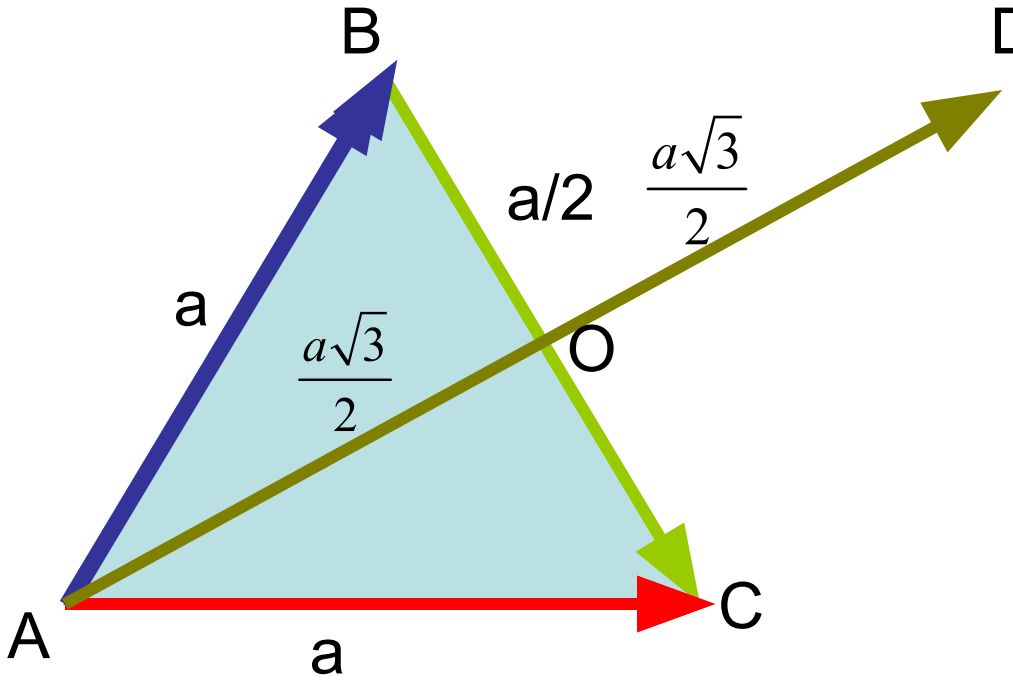


Сложение векторов. Правило многоугольника





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



AB=BC=AC=a

$$\left|\overrightarrow{AB}+\overrightarrow{BC}\right|=$$

$$\left|\overrightarrow{AB}+\overrightarrow{CB}\right|=$$