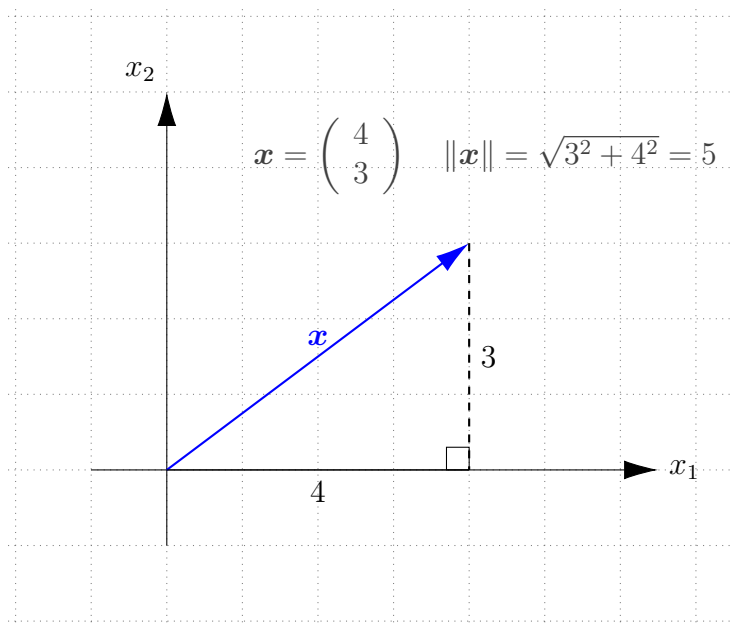
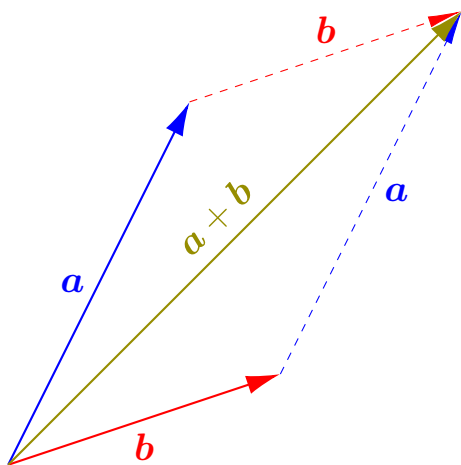


1 Лекция 1

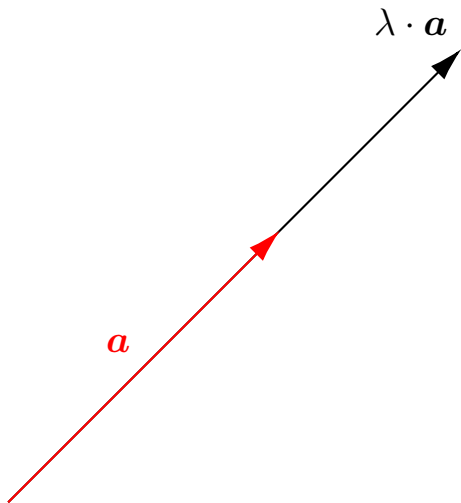
1.1 R1.1



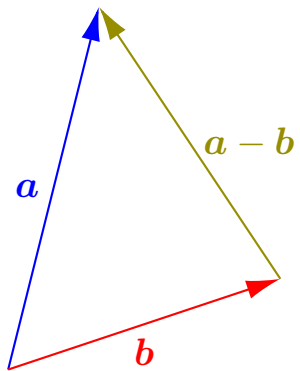
1.2 R1.2



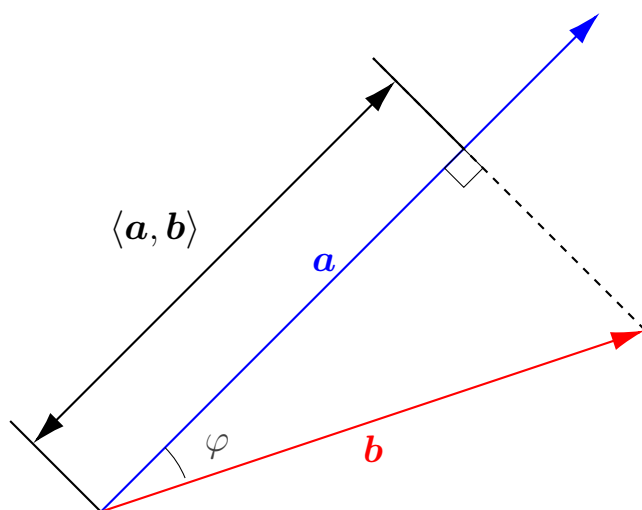
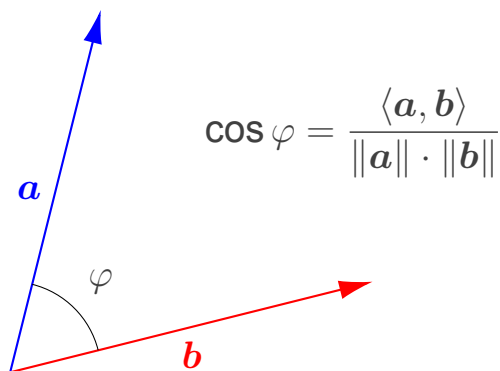
1.3 R1.3



1.4 R1.4

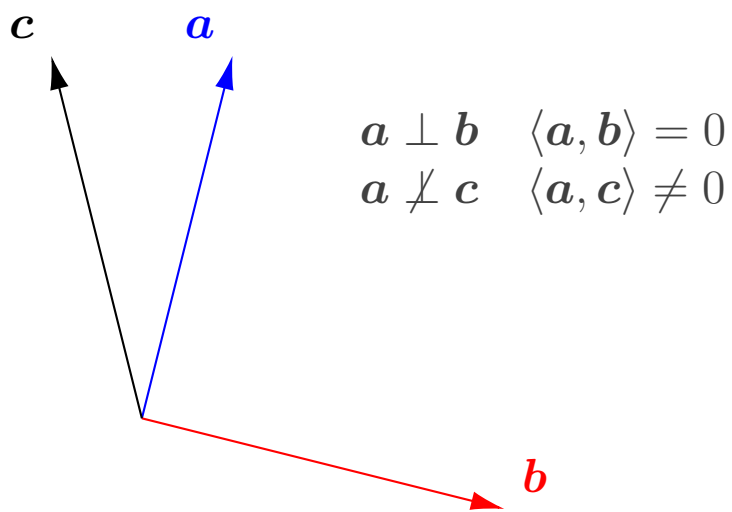


1.5 R1.5

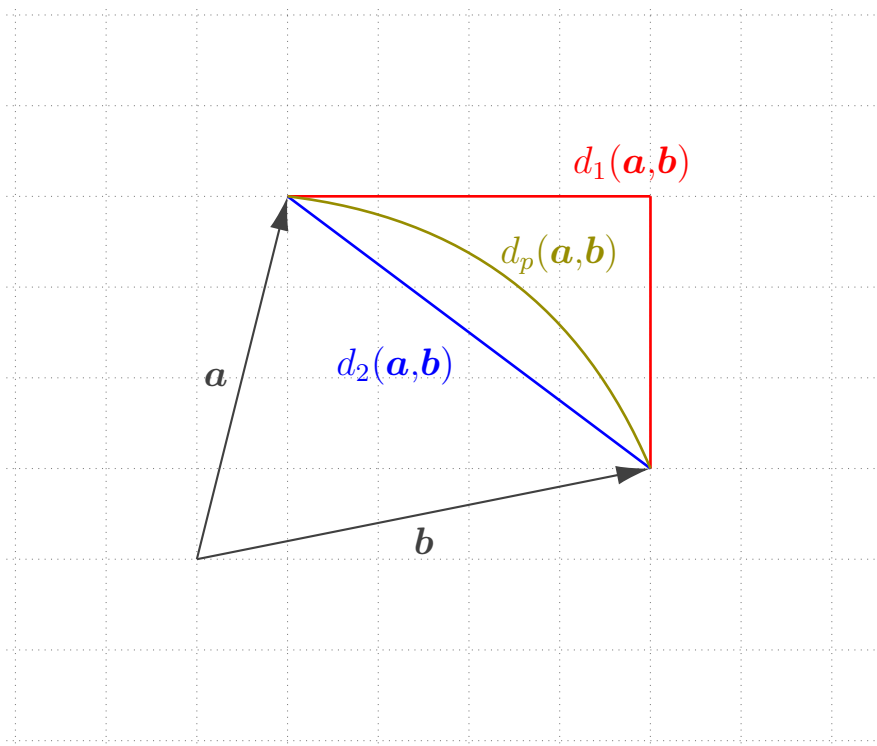


если $\|a\| = 1$, то $\langle a, b \rangle$ – длина* проекции b на

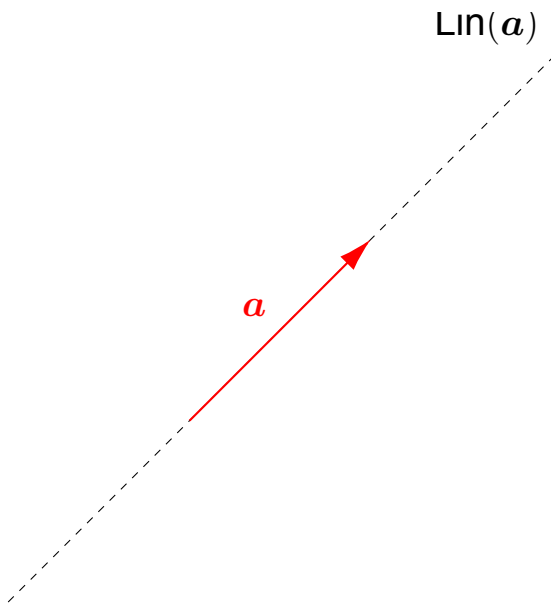
1.6 R1.6



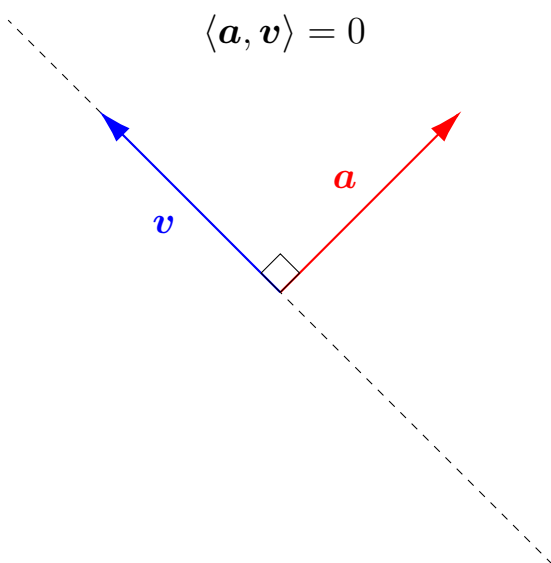
1.7 R1.7



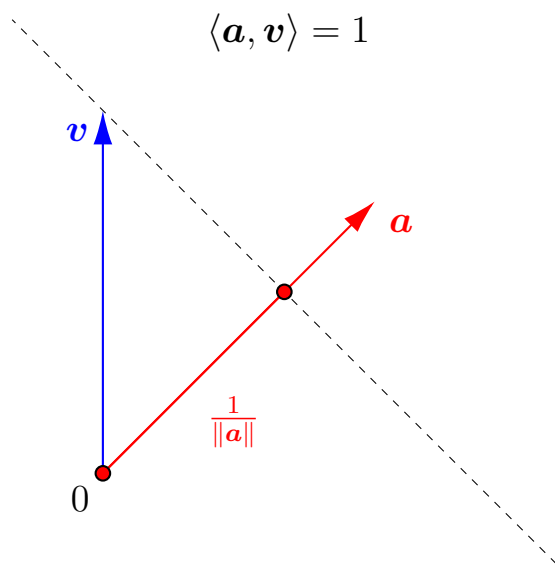
1.8 R1.8



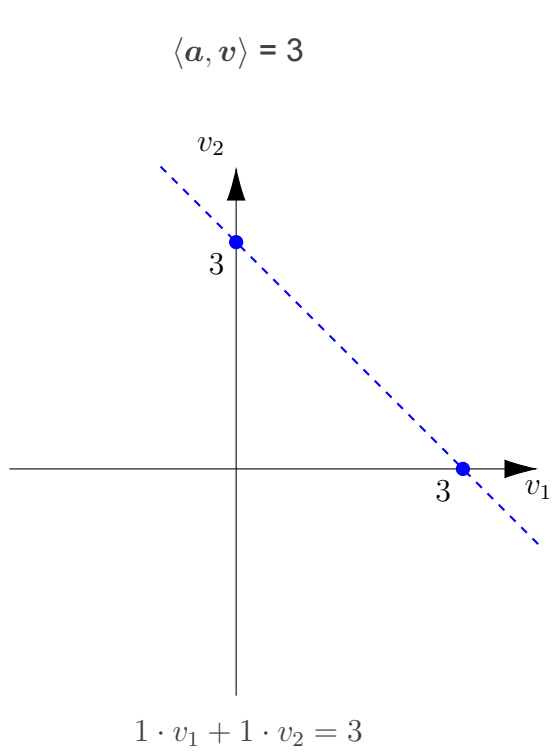
1.9 R1.9



1.10 R1.10

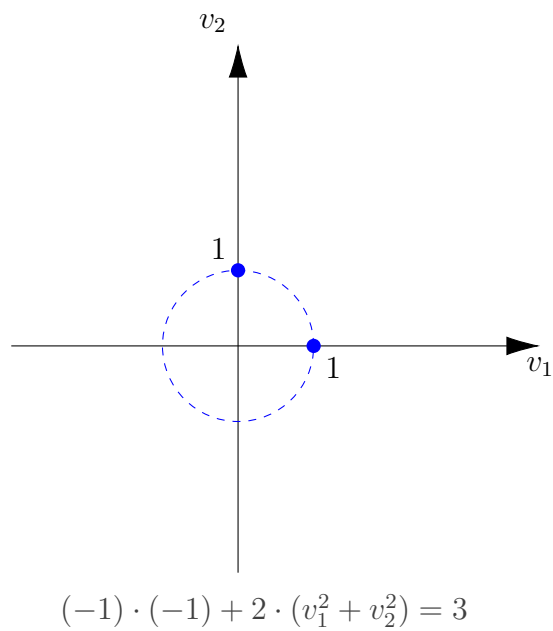


1.11 R1.11

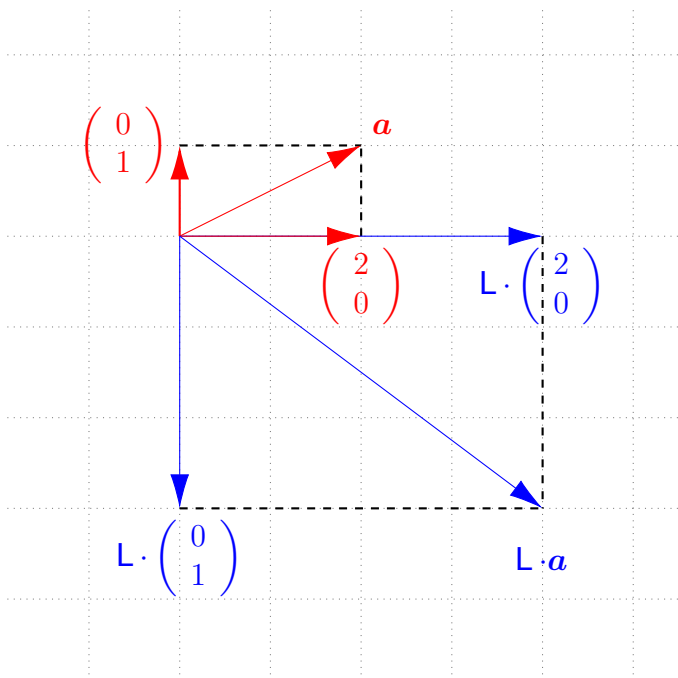


$$a = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

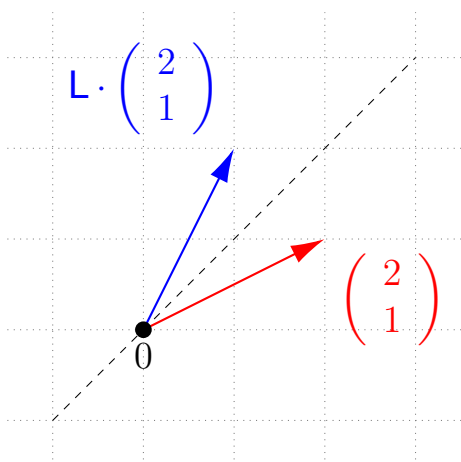
$$K(a, v) = 3$$



1.12 R1.12

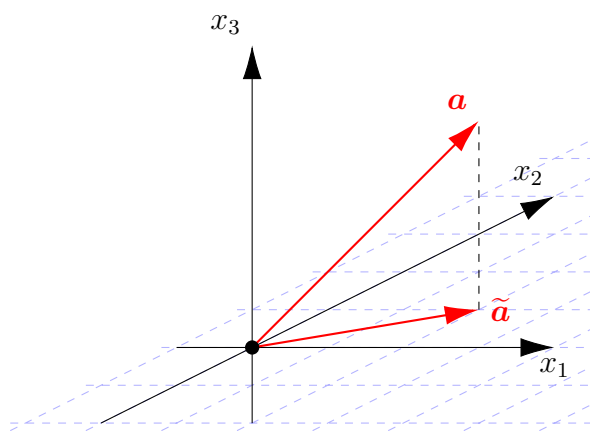


1.13 R1.13

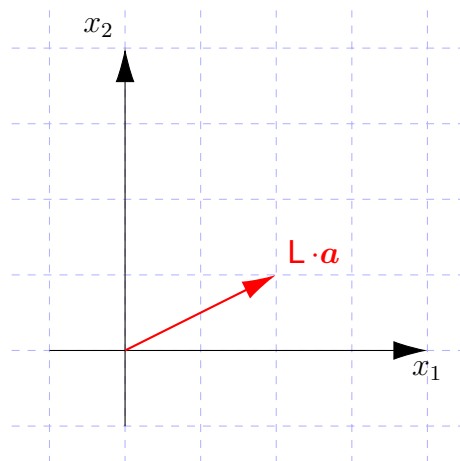


$$L : \begin{pmatrix} a_1 \\ a_2 \end{pmatrix} \rightarrow \begin{pmatrix} a_2 \\ a_1 \end{pmatrix}$$

1.14 R1.14

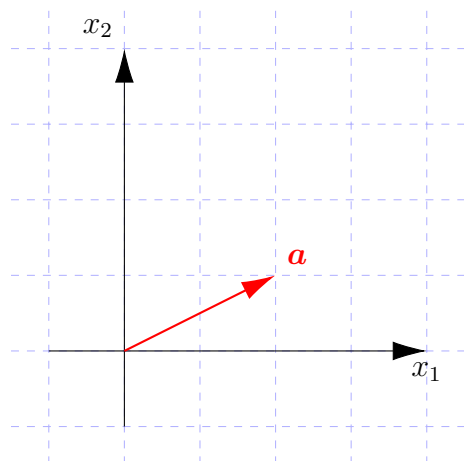


$$\mathbf{a} = \begin{pmatrix} a_1 \\ a_2 \\ a_3 \end{pmatrix} \quad \tilde{\mathbf{a}} = \begin{pmatrix} a_1 \\ a_2 \\ 0 \end{pmatrix}$$

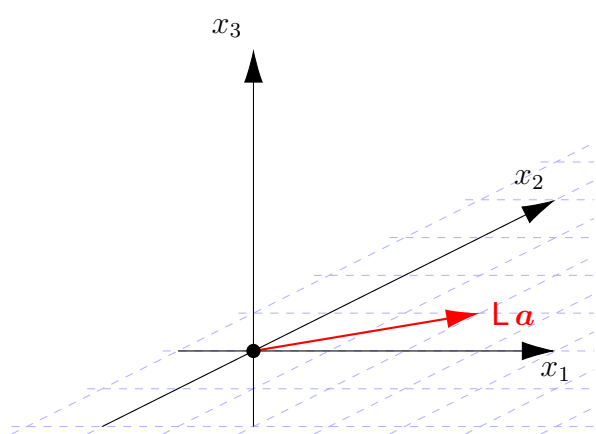


$$\mathbf{L} \mathbf{a} = \begin{pmatrix} a_1 \\ a_2 \end{pmatrix}$$

1.15 R1.15

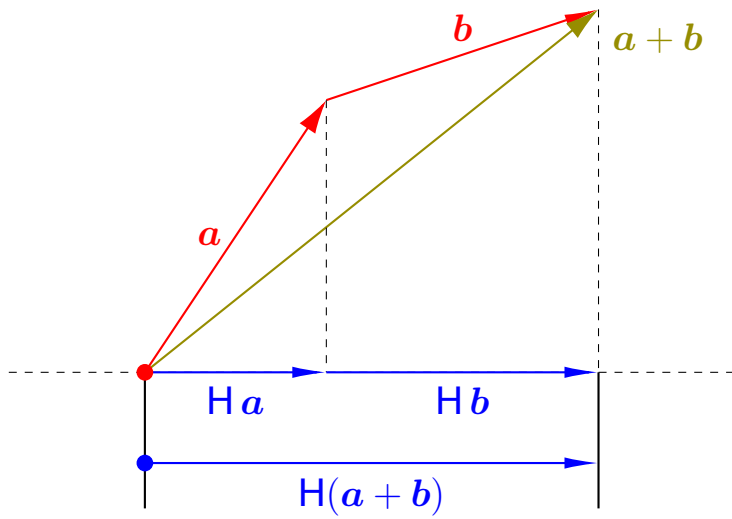


$$a = \begin{pmatrix} a_1 \\ a_2 \end{pmatrix}$$

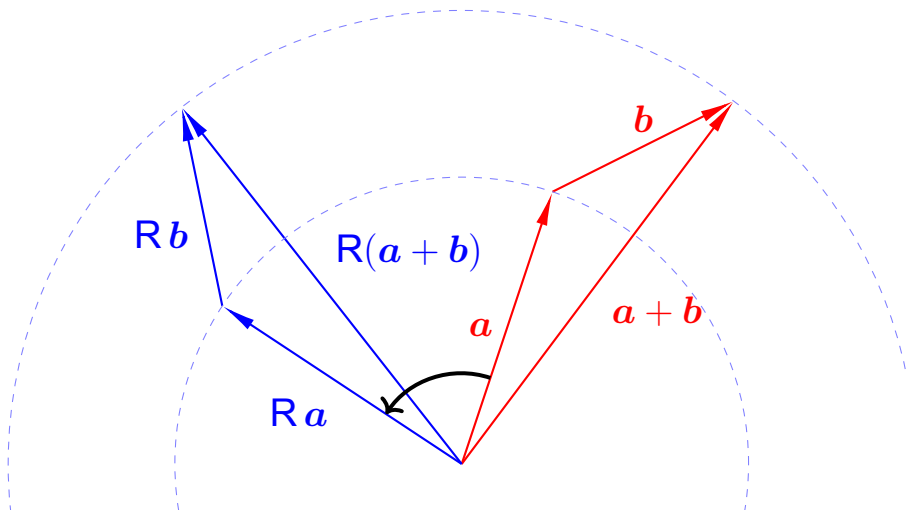


$$La = \begin{pmatrix} a_1 \\ a_2 \\ 0 \end{pmatrix}$$

1.16 R1.16

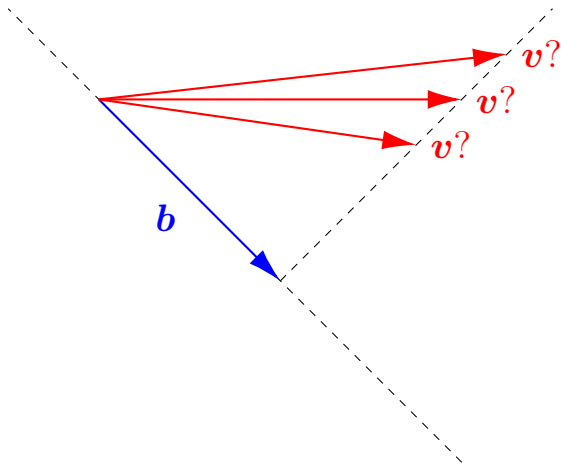


1.17 R1.17



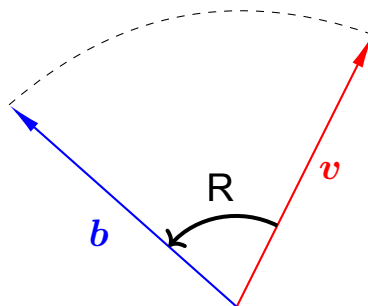
1.18 R1.18

$$Hv = b$$

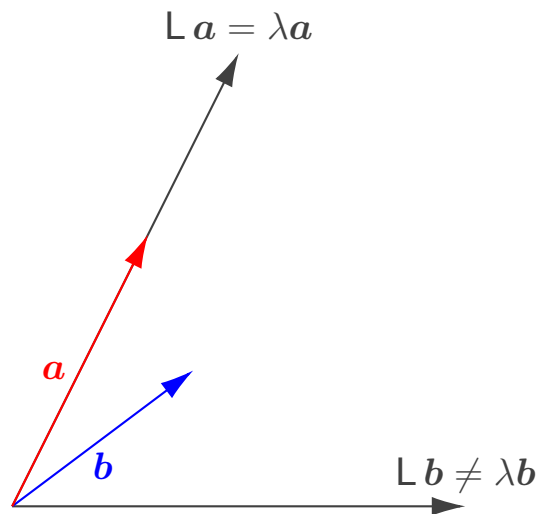


1.19 R1.19

$$Rv = b$$

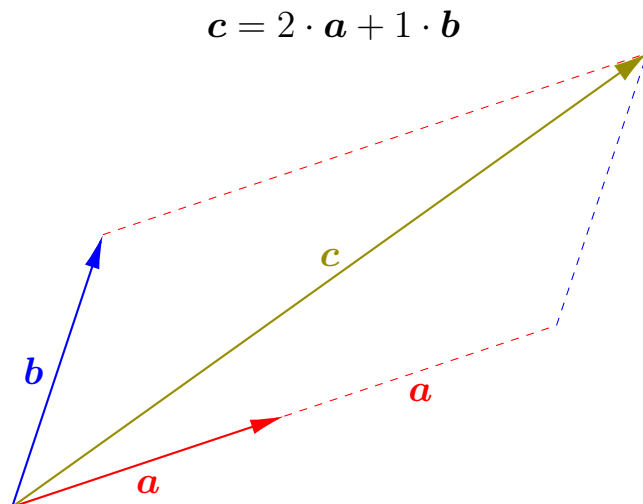


1.20 R1.20

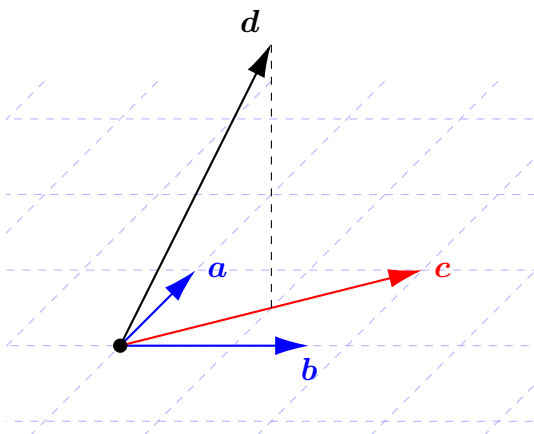


2 Лекция 2

2.1 R2.1



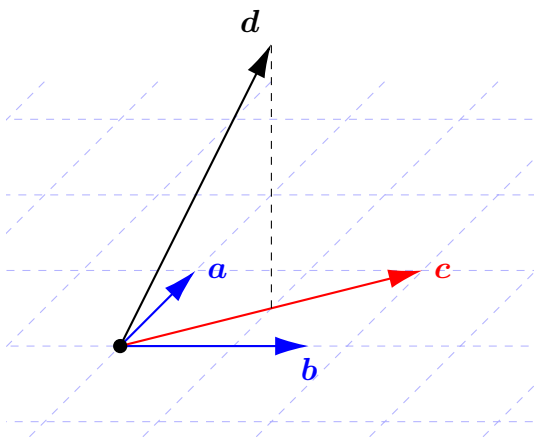
2.2 R2.2



$\{a, b, c\}$ – линейно зависимы

$\{a, b, d\}$ – независимы

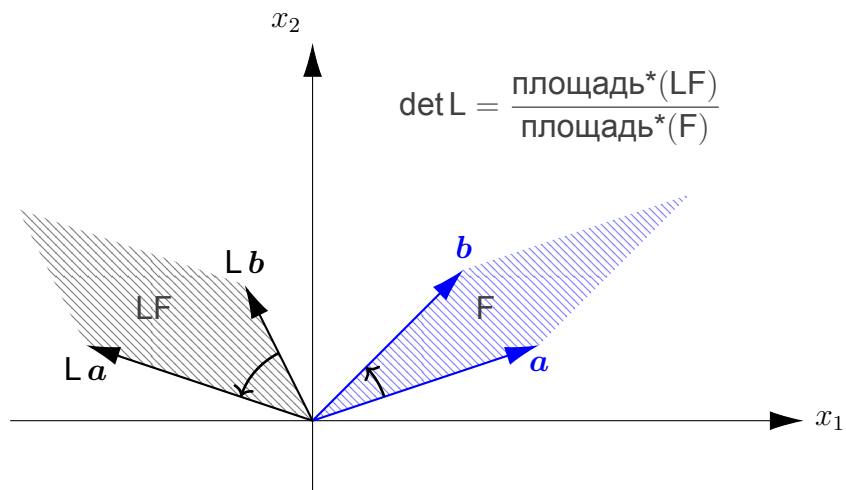
2.3 R2.3



$c \in \text{Lin}(a, b)$

$d \notin \text{Lin}(a, b)$

2.4 R2.4



2.5 R2.5

