

Zadatak 12. Koji kut zatvaraju pravci:

1) $2y + 1 = 0$ i $3x + 5y + 1 = 0$;

2) $x - 2 = 0$ i $x + 2y - 11 = 0$?

Rješenje.

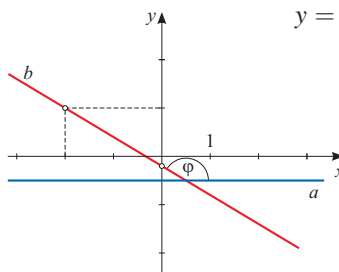
1)

$$a \dots 2y + 1 = 0 \implies y = -\frac{1}{2}$$

$$b \dots 3x + 5y + 1 = 0 \implies 5y = -3x - 1 \quad / : 5$$

$$y = -\frac{3}{5}x - \frac{1}{5}$$

x	y
0	$-\frac{1}{5}$
-2	1



Pravac a je paralelan s osi apscisa pa je kut između pravaca a i b jednak kutu kojeg zatvara pravac b s osi apscisa.

$$\operatorname{tg} \varphi = k_2 = -\frac{3}{5} \implies \varphi = 30^\circ 57' 50''$$

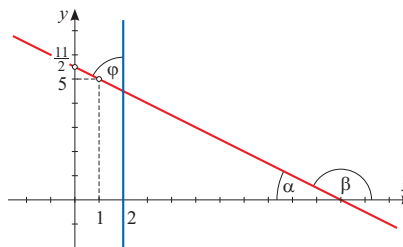
2)

$$a \dots x - 8 = 0 \implies x = 2$$

$$b \dots x + 2y - 11 = 0 \implies 2y = -x + 11 \quad / : 2$$

$$y = -\frac{1}{2}x + \frac{11}{2}$$

x	y
0	$\frac{11}{2}$
1	$\frac{5}{2}$



$$\varphi = 90^\circ - \alpha$$

$$\alpha = 180^\circ - \beta$$

$$\operatorname{tg} \beta = k_2 = -\frac{1}{2} \implies \beta = 153^\circ 26'$$

$$\varphi = 90^\circ - (180^\circ - \beta)$$

$$\varphi = -90^\circ + \beta$$

$$\varphi = \beta - 90^\circ = 63^\circ 26'$$