

Zadatak 21. Središte kružnice je sjecište pravaca $2x - 3y + 5 = 0$ i $3x + 4y - 1 = 0$, a ona dira pravac $x - 3y - 6 = 0$. Odredi jednažbu kružnice.

Rješenje.

$$x = \frac{3}{2}y - \frac{5}{2}$$

$$3 \cdot \left(\frac{3}{2}y - \frac{5}{2} \right) + 4y - 1 = 0$$

$$\frac{9}{2}y - \frac{15}{2} + 4y - 1 = 0$$

$$\frac{17}{2}y = \frac{17}{2}$$

$$y = 1$$

$$x = -1$$

$$S(-1, 1)$$

$$y = \frac{1}{3}x - 2$$

$$r^2 \left(1 + \frac{1}{9} \right) = \left(1 + \frac{1}{3} + 2 \right)^2$$

$$\frac{10}{9}r^2 = \frac{100}{9}$$

$$r^2 = 10$$

$$(x + 1)^2 + (y - 1)^2 = 10.$$