

**Zadatak 46.** Odredi jednadžbu kružnice opisane trokutu kojem stranice leže na pravcima  $2x - 3y + 6 = 0$ ,  $x + 5y + 3 = 0$  i  $3x + 2y - 4 = 0$ .

**Rješenje.**

$$2x - 3y + 6 = 0$$

$$x + 5y + 3 = 0$$

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$$2(-5y - 3) - 3y + 6 = 0$$

$$-10y - 6 - 3y + 6 = 0$$

$$-13y = 0$$

$$y = 0$$

$$x = -3$$

$A(-3, 0)$

$$3x + 2y - 4 = 0$$

$$x + 5y + 3 = 0$$

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$$3(-5y - 3) + 2y - 4 = 0$$

$$-15y - 9 + 2y - 4 = 0$$

$$-13y = 13$$

$$y = -1$$

$$x = 2$$

$B(2, -1)$

$$2x - 3y + 6 = 0 / \cdot 2$$

$$3x + 2y - 4 = 0 / \cdot 3$$

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$$4x - 6y + 12 = 0$$

$$9x + 6y - 12 = 0$$

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$$13x = 0$$

$$x = 0$$

$$-3y = -6$$

$$y = 2$$

$C(0, 2)$

$$r = \frac{d(A, B)}{2} = \frac{\sqrt{25 + 1}}{2} = \frac{sq26}{2}$$

$$S\left(\frac{x_A + x_B}{2}, \frac{y_A + y_B}{2}\right) = S\left(-\frac{1}{2}, -\frac{1}{2}\right)$$

$$\left(x + \frac{1}{2}\right)^2 + \left(y + \frac{1}{2}\right)^2 = \frac{13}{2}.$$