

Zadatak 9. Kako glase jednačbe tangenata položenih na kružnicu $x^2 + y^2 + 10x - 2y + 6 = 0$ paralelno s pravcem $2x + y - 3 = 0$?

Rješenje. $k = -2$, $10 = -2p \implies p = -5$, $-2 = -2q \implies q = 1$,
 $6 = 25 + 1 - r^2 \implies r^2 = 20$

$$r^2(1 + k^2) = (q - kp - l)^2$$

$$20(1 + 4) = (1 - 10 - l)^2$$

$$100 = (-9 - l)^2$$

$$100 = 81 + 18l + l^2$$

$$l^2 + 18l - 19 = 0$$

$$l_{1,2} = \frac{-18 \pm \sqrt{324 + 76}}{2}$$

$$l_{1,2} = \frac{-18 \pm 20}{2}$$

$$l_1 = 1, \quad l_2 = -19$$

$$2x + y - 1 = 0,$$

$$2x + y + 19 = 0.$$