

Zadatak 65. Napiši jednadžbu pravca koji prolazi žarištima dviju parabola: $(y + 2)^2 = x$ i $y = -\frac{1}{4}(x + 2)^2$.

Rješenje.

$$P_1 \dots (y + 2)^2 = x \dots T(0, -2), p = \frac{1}{2} \implies F_1\left(\frac{1}{4}, -2\right)$$

$$P_2 \dots y = -\frac{1}{4}(x + 2)^2, (x + 2)^2 = -4y$$

$$\implies T(-2, 0), p = -2 \implies F_2(-2, -1)$$

$$F_1F_2 \dots y + 2 = \frac{-1 + 2}{-2 - \frac{1}{4}}\left(x - \frac{1}{4}\right)$$

$$y + 2 = \frac{1}{-\frac{9}{4}}\left(x - \frac{1}{4}\right)$$

$$y + 2 = -\frac{4}{9}\left(x - \frac{1}{4}\right) \quad / \cdot 9$$

$$9y + 18 = -4x - 1$$

$$4x + 9y + 17 = 0$$