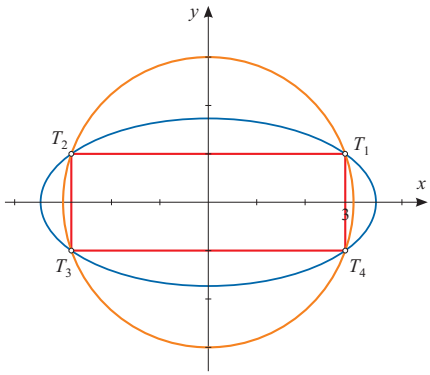
Zadatak 46. Kolika je površina lika kojem su vrhovi sjecišta krivulja $x^2 + y^2 = 9$ i $3x^2 + 12y^2 = 36$?

Rješenje.

$$k \ \ldots \ x^2 + y^2 = 9 \quad / \cdot (-3)$$
$$E \ \ldots \ 3x^2 + 12y^2 = 36$$
$$-3x^2 - 3y^2 = -27$$

$$3x^2 + 12y^2 = 36$$
$$9y^2 = 9 \implies y = \pm 1$$
$$x^2 + 1 = 9$$
$$x^2 = 8 \implies x = \pm 2\sqrt{2}$$

$T(\pm 2\sqrt{2}, \pm 1)$ (vrhovi pravokutnika)



$$P = (2 \cdot 2\sqrt{2}) \cdot (2 \cdot 1)$$
$$P = 8\sqrt{2}$$