

Pericykloida – skrátená

$c > r > R > 0$

$$x = (R-r) \cos \frac{rt}{R} + c \cos \frac{(R-r)t}{R}, \quad y = (R-r) \sin \frac{rt}{R} - c \sin \frac{(R-r)t}{R}, \quad t \in R.$$

$$x = (R-r) \cos \varphi + c \cos \frac{(R-r)\varphi}{r}, \quad y = (R-r) \sin \varphi - c \sin \frac{(R-r)\varphi}{r}, \quad \varphi \in R.$$

$$x = -\frac{4r}{5} \cos 5t + 2r \cos 4t, \quad y = -\frac{4r}{5} \sin 5t + 2r \sin 4t \quad x = -\frac{4r}{5} \cos \varphi + 2r \cos \frac{4\varphi}{5}, \quad y = -\frac{4r}{5} \sin \varphi + 2r \sin \frac{4\varphi}{5}$$
$$t \in \langle 0; 2\pi \rangle \quad \varphi \in \langle 0; 10\pi \rangle$$

$$R = \frac{r}{5}, \quad c = 2r$$