

Pericykloida – skrátená

$c > r > R > 0$

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

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

$$\begin{aligned} x &= \frac{(1-e)r}{e} \cos e t + \frac{3r}{2} \cos (e-1)t \\ y &= \frac{(1-e)r}{e} \sin e t + \frac{3r}{2} \sin (e-1)t \\ t &\in \langle 0; 6.2\pi \rangle \end{aligned}$$

$$\begin{aligned} x &= \frac{(1-e)r}{e} \cos \varphi + \frac{3r}{2} \cos \frac{(e-1)\varphi}{e} \\ y &= \frac{(1-e)r}{e} \sin \varphi + \frac{3r}{2} \sin \frac{(e-1)\varphi}{e} \\ \varphi &\in \langle 0; 16.8533\pi \rangle \end{aligned}$$

$$R = \frac{r}{e}, \quad c = \frac{3r}{2}$$