

Epicykloida – predĺžená

$c > r > 0, R > 0$

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

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

$$x = \frac{(1+e)r}{e} \cos e t - 2r \cos (1+e)t$$

$$y = \frac{(1+e)r}{e} \sin e t - 2r \sin (1+e)t$$

$$t \in \langle 0; 6.2\pi \rangle$$

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

$$x = \frac{(1+e)r}{e} \cos \varphi - 2r \cos \frac{(1+e)\varphi}{e}$$

$$y = \frac{(1+e)r}{e} \sin \varphi - 2r \sin \frac{(1+e)\varphi}{e}$$

$$\varphi \in \langle 0; 16.8533\pi \rangle$$