

# Epicykloida – skrátená

$r > c \geq 0, R > 0$

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

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

$$x = (1+\sqrt{5})r \cos \frac{t}{\sqrt{5}}$$

$$y = (1+\sqrt{5})r \sin \frac{t}{\sqrt{5}}$$

$$t \in \langle 0; 13.8636\pi \rangle$$

$$R = \sqrt{5}r, c = 0$$

$$x = (1+\sqrt{5})r \cos \varphi$$

$$y = (1+\sqrt{5})r \sin \varphi$$

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