

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

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

$$x = (1+\sqrt{11})r \cos \frac{t}{\sqrt{11}} - 3r \cos \frac{(1+\sqrt{11})t}{\sqrt{11}}$$

$$y = (1+\sqrt{11})r \sin \frac{t}{\sqrt{11}} - 3r \sin \frac{(1+\sqrt{11})t}{\sqrt{11}}$$

$$t \in \langle 0; 20.5631\pi \rangle$$

$$R = \sqrt{11}r, c = 3r$$

$$x = (1+\sqrt{11})r \cos \varphi - 3r \cos (1+\sqrt{11})\varphi$$

$$y = (1+\sqrt{11})r \sin \varphi - 3r \sin (1+\sqrt{11})\varphi$$

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