

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

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

$$x = 4r \cos \frac{t}{3} - \frac{3r}{4} \cos \frac{4t}{3}, y = 4r \sin \frac{t}{3} - \frac{3r}{4} \sin \frac{4t}{3}$$

$$t \in (0; 6\pi)$$

$$x = 4r \cos \varphi - \frac{3r}{4} \cos 4\varphi, y = 4r \sin \varphi - \frac{3r}{4} \sin 4\varphi$$

$$\varphi \in (0; 2\pi)$$

$$R = 3r, c = \frac{3r}{4}$$