

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

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

$$x = 9r \cos \frac{t}{8} - 4r \cos \frac{9t}{8}, y = 9r \sin \frac{t}{8} - 4r \sin \frac{9t}{8}$$

$t \in \langle 0; 16\pi \rangle$

$$x = 9r \cos \varphi - 4r \cos 9\varphi, y = 9r \sin \varphi - 4r \sin 9\varphi$$

$\varphi \in \langle 0; 2\pi \rangle$

$$R = 8r, c = 4r$$