

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

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

$$x = 10r \cos \frac{t}{9} - \frac{r}{2} \cos \frac{10t}{9}, y = 10r \sin \frac{t}{9} - \frac{r}{2} \sin \frac{10t}{9}$$

$$t \in \langle 0; 18\pi \rangle$$

$$x = 10r \cos \varphi - \frac{r}{2} \cos 10\varphi, y = 10r \sin \varphi - \frac{r}{2} \sin 10\varphi$$

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

$$R = 9r, c = \frac{r}{2}$$