

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

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

$$x = \frac{10r}{9} \cos 9t - \frac{5r}{4} \cos 10t, y = \frac{10r}{9} \sin 9t - \frac{5r}{4} \sin 10t \quad x = \frac{10r}{9} \cos \varphi - \frac{5r}{4} \cos \frac{10\varphi}{9}, y = \frac{10r}{9} \sin \varphi - \frac{5r}{4} \sin \frac{10\varphi}{9}$$

$t \in (0; 2\pi)$ $\varphi \in (0; 18\pi)$

$$R = \frac{r}{9}, c = \frac{5r}{4}$$