

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

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

$$x = 2r \cos \frac{t}{3} + \frac{r}{4} \cos \frac{2t}{3}, y = 2r \sin \frac{t}{3} - \frac{r}{4} \sin \frac{2t}{3}$$

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

$$x = 2r \cos \varphi + \frac{r}{4} \cos 2\varphi, y = 2r \sin \varphi - \frac{r}{4} \sin 2\varphi$$

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

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