

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

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

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

$t \in (0; 2\pi)$ $\varphi \in (0; 8\pi)$

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