

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

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

$$x = 4r \cos \frac{t}{5} + \frac{5r}{4} \cos \frac{4t}{5}, y = 4r \sin \frac{t}{5} - \frac{5r}{4} \sin \frac{4t}{5}$$

$t \in (0; 10\pi)$

$$x = 4r \cos \varphi + \frac{5r}{4} \cos 4\varphi, y = 4r \sin \varphi - \frac{5r}{4} \sin 4\varphi$$

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

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