

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

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

$$x = \frac{8r}{5} \cos \frac{5t}{3} - \frac{5r}{4} \cos \frac{8t}{3}, y = \frac{8r}{5} \sin \frac{5t}{3} - \frac{5r}{4} \sin \frac{8t}{3}$$

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

$$x = \frac{8r}{5} \cos \varphi - \frac{5r}{4} \cos \frac{8\varphi}{5}, y = \frac{8r}{5} \sin \varphi - \frac{5r}{4} \sin \frac{8\varphi}{5}$$

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

$$R = \frac{3r}{5}, c = \frac{5r}{4}$$