

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

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

$$x = \frac{3r}{4} \cos \frac{4t}{7} + 2r \cos \frac{3t}{7}, y = \frac{3r}{4} \sin \frac{4t}{7} - 2r \sin \frac{3t}{7}$$

$$t \in \langle 0; 14\pi \rangle$$

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

$$\varphi \in \langle 0; 8\pi \rangle$$

$$R = \frac{7r}{4}, c = 2r$$