

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

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

$$x = \frac{7r}{2} \cos \frac{2t}{9} + r \cos \frac{7t}{9}, y = \frac{7r}{2} \sin \frac{2t}{9} - r \sin \frac{7t}{9}$$

$t \in \langle 0; 18\pi \rangle$

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

$\varphi \in \langle 0; 4\pi \rangle$

$$R = \frac{9r}{2}, c = r$$