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

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

$x = \frac{16r}{9}\cos\frac{9t}{7} - r\cos\frac{16t}{7}, \; y = \frac{16r}{9}\sin\frac{9t}{7} - r\sin\frac{16t}{7}$
$t\in\langle 0\,;\,14\pi\rangle$

$x = \frac{16r}{9}\cos\varphi - r\cos\frac{16\varphi}{9}, \; y = \frac{16r}{9}\sin\varphi - r\sin\frac{16\varphi}{9}$
$\varphi\in\langle 0\,;\,18\pi\rangle$

$$R = \frac{7r}{9}, \; c = r$$