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

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

$x = (1+\sqrt{5})r\cos\frac{t}{\sqrt{5}}$

$y = (1+\sqrt{5})r\sin\frac{t}{\sqrt{5}}$

$t \in \langle 0\,;\, 13.8636\pi \rangle$

$x = (1+\sqrt{5})r\cos\varphi$

$y = (1+\sqrt{5})r\sin\varphi$

$\varphi \in \langle 0\,;\, 6.2\pi \rangle$

$$\boxed{R = \sqrt{5}r,\ c = 0}$$