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

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

$x = -\frac{5r}{7}\cos\frac{7t}{2} + 2r\cos\frac{5t}{2}, \ y = -\frac{5r}{7}\sin\frac{7t}{2} + 2r\sin\frac{5t}{2}$ $x = -\frac{5r}{7}\cos\varphi + 2r\cos\frac{5\varphi}{7}, \ y = -\frac{5r}{7}\sin\varphi + 2r\sin\frac{5\varphi}{7}$

$t \in \langle 0 \, ; \, 4\pi \rangle$ $\varphi \in \langle 0 \, ; \, 14\pi \rangle$

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