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

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

$x = (e-1)r\cos\frac{t}{e} + \frac{r}{2}\cos\frac{(e-1)t}{e}$

$y = (e-1)r\sin\frac{t}{e} - \frac{r}{2}\sin\frac{(e-1)t}{e}$

$t \in \langle 0\,;\,16.8533\pi\rangle$

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

$x = (e-1)r\cos\varphi + \frac{r}{2}\cos(e-1)\varphi$

$y = (e-1)r\sin\varphi - \frac{r}{2}\sin(e-1)\varphi$

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