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

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

$x = \frac{(1+e)r}{e}\cos e\,t - \frac{3r}{4}\cos(1+e)t$

$y = \frac{(1+e)r}{e}\sin e\,t - \frac{3r}{4}\sin(1+e)t$

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

$$R = \frac{r}{e},\ c = \frac{3r}{4}$$

$x = \frac{(1+e)r}{e}\cos\varphi - \frac{3r}{4}\cos\frac{(1+e)\varphi}{e}$

$y = \frac{(1+e)r}{e}\sin\varphi - \frac{3r}{4}\sin\frac{(1+e)\varphi}{e}$

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