Pericykloida – predĺžená $r > c > 0,\ r > R > 0$

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

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

$$x = \frac{(1-\sqrt{2})r}{\sqrt{2}}\cos\sqrt{2}t + \frac{3r}{4}\cos(\sqrt{2}-1)t$$
$$y = \frac{(1-\sqrt{2})r}{\sqrt{2}}\sin\sqrt{2}t + \frac{3r}{4}\sin(\sqrt{2}-1)t$$
$t\in\langle 0\,;\ 6.2\pi\rangle$

$$R = \frac{r}{\sqrt{2}},\ c = \frac{3r}{4}$$

$$x = \frac{(1-\sqrt{2})r}{\sqrt{2}}\cos\varphi + \frac{3r}{4}\cos\frac{(\sqrt{2}-1)\varphi}{\sqrt{2}}$$
$$y = \frac{(1-\sqrt{2})r}{\sqrt{2}}\sin\varphi + \frac{3r}{4}\sin\frac{(\sqrt{2}-1)\varphi}{\sqrt{2}}$$
$\varphi\in\langle 0\,;\ 8.7681\pi\rangle$