Pericykloida – predĺžená

$r > c > 0,\ r > R > 0$

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

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

$x = \frac{(1-\sqrt{3})r}{\sqrt{3}}\cos\sqrt{3}t + \frac{r}{2}\cos(\sqrt{3}-1)t$

$y = \frac{(1-\sqrt{3})r}{\sqrt{3}}\sin\sqrt{3}t + \frac{r}{2}\sin(\sqrt{3}-1)t$

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

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

$x = \frac{(1-\sqrt{3})r}{\sqrt{3}}\cos\varphi + \frac{r}{2}\cos\frac{(\sqrt{3}-1)\varphi}{\sqrt{3}}$

$y = \frac{(1-\sqrt{3})r}{\sqrt{3}}\sin\varphi + \frac{r}{2}\sin\frac{(\sqrt{3}-1)\varphi}{\sqrt{3}}$

$\varphi \in \langle 0\,;\ 10.7387\pi\rangle$