Pericykloida – skrátená

$c > r > R > 0$

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

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

$x = \frac{(1-\sqrt{11})r}{\sqrt{11}}\cos\sqrt{11}t + \frac{5r}{4}\cos(\sqrt{11}-1)t$

$y = \frac{(1-\sqrt{11})r}{\sqrt{11}}\sin\sqrt{11}t + \frac{5r}{4}\sin(\sqrt{11}-1)t$

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

$R = \frac{r}{\sqrt{11}},\ c = \frac{5r}{4}$

$x = \frac{(1-\sqrt{11})r}{\sqrt{11}}\cos\varphi + \frac{5r}{4}\cos\frac{(\sqrt{11}-1)\varphi}{\sqrt{11}}$

$y = \frac{(1-\sqrt{11})r}{\sqrt{11}}\sin\varphi + \frac{5r}{4}\sin\frac{(\sqrt{11}-1)\varphi}{\sqrt{11}}$

$\varphi \in \langle 0\,;\ 20.5631\pi \rangle$