Hypocykloida − skrátená

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

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

$x = (\sqrt{7}-1)r\cos\frac{t}{\sqrt{7}} + \frac{r}{4}\cos\frac{(\sqrt{7}-1)t}{\sqrt{7}}$

$y = (\sqrt{7}-1)r\sin\frac{t}{\sqrt{7}} - \frac{r}{4}\sin\frac{(\sqrt{7}-1)t}{\sqrt{7}}$

$t \in \langle 0\,;\ 16.4037\pi \rangle$

$$R = \sqrt{7}r,\ c = \frac{r}{4}$$

$x = (\sqrt{7}-1)r\cos\varphi + \frac{r}{4}\cos(\sqrt{7}-1)\varphi$

$y = (\sqrt{7}-1)r\sin\varphi - \frac{r}{4}\sin(\sqrt{7}-1)\varphi$

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