Epicykloida – skrátená

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

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

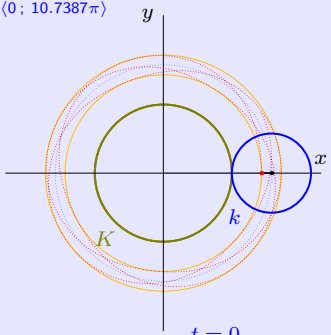
$x = (R+r)\cos\varphi - c\cos\frac{(R+r)\varphi}{r},\ y = (R+r)\sin\varphi - c\sin\frac{(R+r)\varphi}{r},\ \varphi \in R.$

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

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

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

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

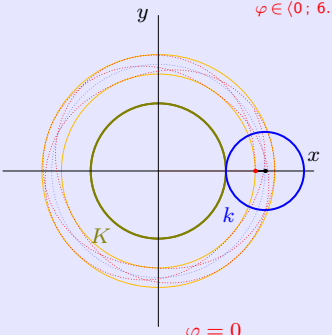


$t = 0$

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

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

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



$\varphi = 0$