Epicykloida – skrátená

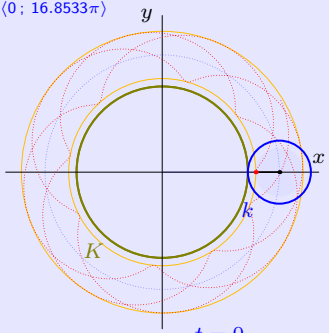
$r > c \geq 0,\ R > 0$

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

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

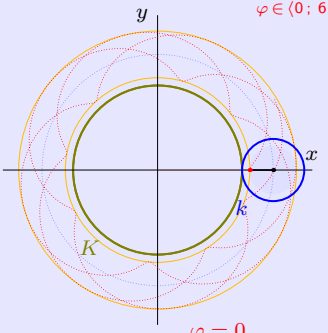
$x = (1+\mathrm{e})r\cos\frac{t}{\mathrm{e}} - \frac{3r}{4}\cos\frac{(1+\mathrm{e})t}{\mathrm{e}}$
$y = (1+\mathrm{e})r\sin\frac{t}{\mathrm{e}} - \frac{3r}{4}\sin\frac{(1+\mathrm{e})t}{\mathrm{e}}$
$t \in \langle 0\,;\ 16.8533\pi \rangle$

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



$t = 0$

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



$\varphi = 0$