Hypocykloida – skrátená

$R > r > c > 0$

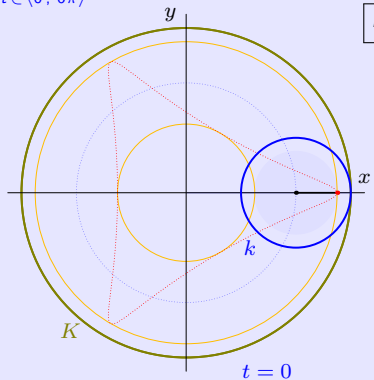
$x = (R-r)\cos\frac{rt}{R} + c\cos\frac{(R-r)t}{R},\ y = (R-r)\sin\frac{rt}{R} - c\sin\frac{(R-r)t}{R},\ t \in R.$

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

$x = 2r\cos\frac{t}{3} + \frac{3r}{4}\cos\frac{2t}{3},\ y = 2r\sin\frac{t}{3} - \frac{3r}{4}\sin\frac{2t}{3}$

$t \in \langle 0\,;\ 6\pi\rangle$

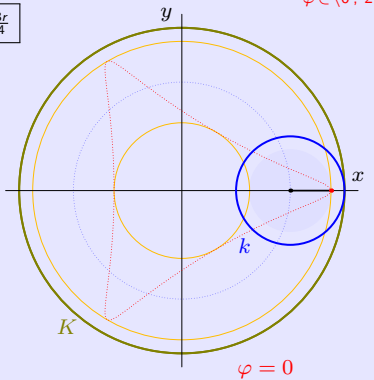
$R = 3r,\ c = \frac{3r}{4}$



$t = 0$

$x = 2r\cos\varphi + \frac{3r}{4}\cos 2\varphi,\ y = 2r\sin\varphi - \frac{3r}{4}\sin 2\varphi$

$\varphi \in \langle 0\,;\ 2\pi\rangle$



$\varphi = 0$