Epicykloida – skrátená

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

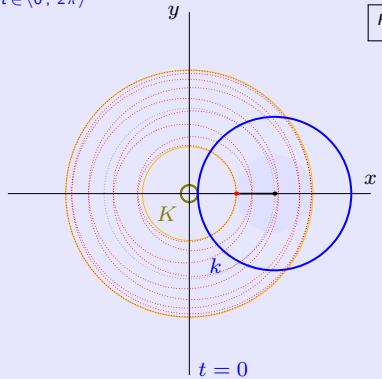
$x = (R+r)\cos\frac{rt}{R} - c\cos\frac{(R+r)t}{R},\ y = (R+r)\sin\frac{rt}{R} - c\sin\frac{(R+r)t}{R},\ t \in R.$

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

$x = \frac{10r}{9}\cos 9t - \frac{r}{2}\cos 10t,\ y = \frac{10r}{9}\sin 9t - \frac{r}{2}\sin 10t$

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

$R = \frac{r}{9},\ c = \frac{r}{2}$



$x = \frac{10r}{9}\cos\varphi - \frac{r}{2}\cos\frac{10\varphi}{9},\ y = \frac{10r}{9}\sin\varphi - \frac{r}{2}\sin\frac{10\varphi}{9}$

$\varphi \in \langle 0\,;\ 18\pi \rangle$