Epicykloida – predĺžená

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

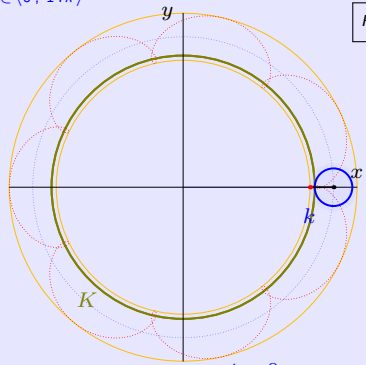
$x = (R+r)\cos\frac{rt}{R} - c\cos\frac{(R+r)t}{R},\ y = (R+r)\sin\frac{rt}{R} - c\sin\frac{(R+r)t}{R},\ t \in R.$

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

$x = 8r\cos\frac{t}{7} - \frac{5r}{4}\cos\frac{8t}{7},\ y = 8r\sin\frac{t}{7} - \frac{5r}{4}\sin\frac{8t}{7}$

$t \in \langle 0\ ;\ 14\pi \rangle$

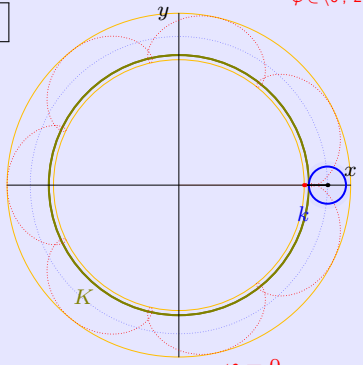
$R = 7r,\ c = \frac{5r}{4}$



$t = 0$

$x = 8r\cos\varphi - \frac{5r}{4}\cos 8\varphi,\ y = 8r\sin\varphi - \frac{5r}{4}\sin 8\varphi$

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



$\varphi = 0$