Epicykloida – predĺžená

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

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

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

$x = \frac{9r}{2}\cos\frac{2t}{7} - 4r\cos\frac{9t}{7},\ y = \frac{9r}{2}\sin\frac{2t}{7} - 4r\sin\frac{9t}{7}$

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

$x = \frac{9r}{2}\cos\varphi - 4r\cos\frac{9\varphi}{2},\ y = \frac{9r}{2}\sin\varphi - 4r\sin\frac{9\varphi}{2}$

$\varphi \in \langle 0\,;\, 4\pi \rangle$

$$R = \frac{7r}{2},\ c = 4r$$