

# Hypocykloida – obyčajná

$c=r, R>r>0$

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

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

$$x = \frac{5r}{3} \cos \frac{3t}{8} + r \cos \frac{5t}{8}, \quad y = \frac{5r}{3} \sin \frac{3t}{8} - r \sin \frac{5t}{8} \\ t \in \langle 0; 16\pi \rangle$$

$$x = \frac{5r}{3} \cos \varphi + r \cos \frac{5\varphi}{3}, \quad y = \frac{5r}{3} \sin \varphi - r \sin \frac{5\varphi}{3} \\ \varphi \in \langle 0; 6\pi \rangle$$

$$R = \frac{8r}{3}, \quad c = r$$