

# Hypocykloida – obyčajná

$c=r, R>r>0$

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

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

$$x = \frac{4r}{5} \cos \frac{5t}{9} + r \cos \frac{4t}{9}, \quad y = \frac{4r}{5} \sin \frac{5t}{9} - r \sin \frac{4t}{9}$$
$$t \in \langle 0; 18\pi \rangle$$

$$x = \frac{4r}{5} \cos \varphi + r \cos \frac{4\varphi}{5}, \quad y = \frac{4r}{5} \sin \varphi - r \sin \frac{4\varphi}{5}$$
$$\varphi \in \langle 0; 10\pi \rangle$$

$$R = \frac{9r}{5}, \quad c = r$$