

# Pericykloida – skrátená

$c > r > R > 0$

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

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

$$x = -\frac{3r}{8} \cos \frac{8t}{5} + 5r \cos \frac{3t}{5}, \quad y = -\frac{3r}{8} \sin \frac{8t}{5} + 5r \sin \frac{3t}{5} \quad x = -\frac{3r}{8} \cos \varphi + 5r \cos \frac{3\varphi}{8}, \quad y = -\frac{3r}{8} \sin \varphi + 5r \sin \frac{3\varphi}{8}$$
$$t \in \langle 0; 10\pi \rangle \quad \varphi \in \langle 0; 16\pi \rangle$$

$$R = \frac{5r}{8}, \quad c = 5r$$