

Hypocykloida – skrátená

$R > r > c > 0$

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

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

$$x = \frac{2r}{7} \cos \frac{7t}{9} + \frac{r}{4} \cos \frac{2t}{9}, \quad y = \frac{2r}{7} \sin \frac{7t}{9} - \frac{r}{4} \sin \frac{2t}{9} \\ t \in \langle 0; 18\pi \rangle$$

$$x = \frac{2r}{7} \cos \varphi + \frac{r}{4} \cos \frac{2\varphi}{7}, \quad y = \frac{2r}{7} \sin \varphi - \frac{r}{4} \sin \frac{2\varphi}{7} \\ \varphi \in \langle 0; 14\pi \rangle$$

$$R = \frac{9r}{7}, \quad c = \frac{r}{4}$$