

Stosując metodę Eulera mamy rozwiązanie

①

$$-0.3y - \frac{dy}{dt} = 0$$

$$y' = -0.3y$$

$$h = \frac{1}{2}$$

$$t \in (0, 1)$$

$$x_0 = 0 \quad y_0 = 2$$

$$y_1 = y_0 + h \cdot f(x_0, y_0)$$

X	y	f(x,y)
$x_0 = 0$	2	$-0.3y \mid_{x_0, y_0} = -0.3 \cdot 2 = -0.6$
$x_1 = 0.5$	$2 + 0.5 \cdot (-0.6) = 1.7$	$f(0.5, 1.7) = -0.51$
$x_2 = 1$	$1.7 + 0.5 \cdot (-0.51) = 1.445$	

0)	X	y	f(x,y)
	0	2	$f(0,2) = -0.3 \cdot 2 = -0.6$
1)	0.25	$2 + \frac{1}{4} \cdot (-0.6) = 1.85$	$f(0.25, 1.85) = -0.555$
2)	0.5	$1.85 + \frac{1}{4} \cdot (-0.555) = 1.71125$	$f(0.5, 1.71125) = -0.513375$
3)	0.75	$1.71125 + \frac{1}{4} \cdot (-0.513375) = 1.58290625$	$f(0.75, 1.582906) = -0.474871875$
4)	1	$1.58290625 + \frac{1}{4} \cdot (-0.474871875) = 1.464188281$	