

Drugi Newtonov interpolacioni polinom

$s = \frac{x - x_0}{h}$ gdje je h udaljenost između pojedinih vremenskih tačaka i inače je konstantna

$$h = x_1 - x_0$$

$$h = 0.1$$

$$s = \frac{5.44 - 5.5}{0.1} = -0.6$$

x_i	$f_i^{(1)}$	$f_i^{(2)}$		
5.1	0.196078	-0.00377	0.000141	-0.000006
5.2	0.192308	-0.003629	0.000135	-0.000014
5.3	0.188679	-0.003494	0.000127	
5.4	0.185185	-0.003367		
$x_0 \leftarrow 5.5$	0.181818			
5.6	0.17857			
5.7	0.175438			

$$P(5.44) = f(5.5) + s \Delta f(5.5) + \frac{s(s+1)}{2!} \Delta^2 f(5.5) + \frac{s(s+1)(s+2)}{3!} \Delta^3 f(5.5)$$

$$\Rightarrow$$

$$P(5.44) = 0.181818 + (-0.6) \cdot (-0.003367) + \frac{(-0.6)(-0.6+1)}{2!} \cdot 0.000127 + \frac{(-0.6)(-0.6+1)(-0.6+2)}{3!} \cdot (-0.000014) \dots$$

$$P(5.44) = 0.183823$$