

NEWTONIN MENETELMÄ / Saiid-F

esim 415

$$f(x) = 2x - e^{-x}$$

f on jatk. & der kolu \mathbb{R} :sti

$$f'(x) = 2 + e^x$$

x_0 alkuarvo

$$x_{n+1} = x_n - \frac{f(x_n)}{f'(x_n)}, \quad f'(x_n) \neq 0, \quad n = 0, 1, 2, \dots$$

$$x_0 = 0$$

$$x_1 = x_0 - \frac{f(x_0)}{f'(x_0)} \\ = 0 - \frac{2 \cdot 0 - e^{-0}}{2 + e^0}$$

$$x_2 = \dots \quad \curvearrowright$$

laskimella

$$x_0 = 0$$

$$x_1 =$$

$$x_2 =$$

$$\text{ANS} - \frac{2 \text{ANS} - e^{-\text{ANS}}}{2 + e^{\text{ANS}}} \rightarrow f(x)$$

ANS

$\frac{1}{2}$

$$\text{ANS} - \frac{2 \text{ANS} - e^{-\text{ANS}}}{2 + e^{\text{ANS}}}$$

ctrl a muutama

uusi rivi

ctrl c kopioida

ctrl v

$x=0$] MENU 2 1

ctrl v

uusi]

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415, 416, 418, 421, 423, 424, 426