TITULO

Método de Euler.

FECHA

$y' = x + y^2$, $y(0) = 0$; $y(0.2)$

Primer caso $h = 0.1$ $x_0 = 0$, $y_0 = 0$

$\frac{dy}{dx} = x + y^2$ $dy = (x + y^2)\,dx$

$y_{n+1} = y_n + hf(x_n, y_n)$

$y_1 = y_0 + h(x_0 + y_0^2)$ $y_1 = 0 + (0.1)(0 + 0^2)$

Para $x = 0.2$

$y_1 = 0 + (0.1)(0) = 0 + 0$

$y_1 = y(0.1) = 0$

Para $x = 0.2$

$y_{1+1} = y_1 + hf(x_1, x_2)$

$y_2 = 0 + ((1)(0.1) + 0^2)$

$y_2 \cdot y(0.2) = 0.01$