

- Condición inicial
 $y(0) = 1$

- $h = 0.5$

- Intervalo (0 a 4)

Método de Euler

$$\frac{dy}{dx} = -2x^3 + 12x^2 - 20x + 8.5$$

$$f(0) = -2(0)^3 + 12(0)^2 - 20(0) + 8.5 = 8.5$$

$$f(0.5) = -2(0.5)^3 + 12(0.5)^2 - 20(0.5) + 8.5 = 1.25$$

$$f(1) = -2(1)^3 + 12(1)^2 - 20(1) + 8.5 = -1.5$$

$$f(1.5) = -2(1.5)^3 + 12(1.5)^2 - 20(1.5) + 8.5 = -1.25$$

$$f(2) = -2(2)^3 + 12(2)^2 - 20(2) + 8.5 = 0.5$$

$$f(2.5) = -2(2.5)^3 + 12(2.5)^2 - 20(2.5) + 8.5 = 2.25$$

$$f(3) = -2(3)^3 + 12(3)^2 - 20(3) + 8.5 = 2.5$$

$$f(3.5) = -2(3.5)^3 + 12(3.5)^2 - 20(3.5) + 8.5 = -0.25$$

$$f(4) = -2(4)^3 + 12(4)^2 - 20(4) + 8.5 = -7.5$$

$$(0, 1)$$

$$(0.5, y = 1 + 8.5 * 0.5) \rightarrow 5.25$$

$$(1, y = 5.25 + 1.25 * 0.5) \rightarrow 5.875$$

$$(1.5, y = 5.875 + (-1.5) * 0.5) \rightarrow 5.125$$

$$(2, y = 5.125 + (-1.25) * 0.5) \rightarrow 4.5$$

$$(2.5, y = 4.5 + (0.5) * 0.5) \rightarrow 4.75$$

$$(3, y = 4.75 + (2.25) * 0.5) \rightarrow 5.875$$

$$(3.5, y = 5.875 + (2.5) * 0.5) \rightarrow 7.125$$

$$(4, y = 7.125 + (-0.25) * 0.5) \rightarrow 7$$

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