TEMA / MATERIA | DIA | MES | AÑO

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$$D_+ \quad \frac{f(x+h)-f(x)}{h} \qquad D_- \quad \frac{f(x)-f(x-h)}{h}$$

$$D_c \quad \frac{f(x+h)-f(x)+f(x)-f(x-h)}{2h} = \frac{f(x+h)-f(x-h)}{2h}$$

$$\frac{\dfrac{f(x+2h)-f(x)}{2h} - \dfrac{f(x)-f(x-2h)}{2h}}{2h} = D^2 = \frac{f(x+2h)-2f(x)+f(x-2h)}{4h^2}$$

$$\frac{\dfrac{f(x+3h)-2f(x+h)+f(x-h)}{4h^2} - \dfrac{f(x+h)-2f(x-h)+f(x-3h)}{4h^2}}{2h}$$

$$D^3 = \frac{f(x+3h)-3f(x+h)+3f(x-h)-f(x-3h)}{8h^3}$$

$$\frac{\dfrac{f(x+4h)-3f(x+2h)+3f(x)-f(x-2h)}{8h^3} - \dfrac{f(x+2h)-3f(x)+3f(x-2h)-f(x-4h)}{8h^3}}{2h}$$

$$D^4 = \frac{f(x+4h)-4f(x+2h)+6f(x)-4f(x-2h)+f(x-4h)}{16h^4}$$

$$\left.\begin{array}{l} 2h = h' \\ x+2h' = x_j+2 \\ x+h' = x_j+1 \\ x = x_j \\ x-h' = x_j-1 \\ x-2h' = x_j-2 \end{array}\right\} \quad D^4 f(x_j) = \frac{f(x_j+2)-4f(x_j+1)+6f(x_j)-4f(x_j-1)+f(x_j-2)}{8h^4}$$

aproximacion orden $\rightarrow O(h^4)$