

CALCULO

¡CALCULO!

①

$$y = x^5 + 5x^4 - 10x^3 + 6$$

$$\frac{d}{dx} (5x^6) + \frac{d}{dx} (x^5) - \frac{d}{dx} (10x^3) + \frac{d}{dx} (6)$$
$$\textcircled{F3} \quad dy = \frac{d}{dx} (5x^6) + \frac{d}{dx} (x^5) - \frac{d}{dx} (10x^3) + \frac{d}{dx} (6)$$

$$\textcircled{F1} = 5 \frac{d}{dx} (x^6) + 5x^{5-1} - 10 \frac{d}{dx} (x^3) + 0$$
$$= 5(6)x^{6-1} + 5x^4 - 10(3)x^{3-1}$$

$$30x^5 + 5x^4 - 30x^2$$

$$y = 5x^6 + x^5 - 10x^3 + 6$$

$$= 30x^5 + 5x^4 - 30x^2$$

ΔCALCULO!

③

$$y = \frac{1}{2x^2} + \frac{4}{\sqrt{x}} = \frac{1}{2}x^{-3} + 4x^{-1/2}$$

$$= \frac{1}{2}x^{-2} + 4x^{-1/2}$$

$$= -\frac{2}{2}x^{-3} + 4\left(-\frac{1}{2}\right)x^{-3/2}$$

$$= -x^{-3} - 2x^{-3/2} = -\frac{1}{x^3} - \frac{2}{x^{3/2}}$$

$$= -\frac{1}{x^3} - \frac{2}{\sqrt{x^3}}$$

⑤ **Δ CALCULO?**

$$F(t) = \frac{2}{\sqrt{t}} + \frac{6}{\sqrt[3]{t}}$$

$$= \frac{2}{t^{1/2}} + \frac{6}{t^{1/3}}$$

$$= 2t^{3/2} + 6t^{-1/3}$$

$$= -2\left(\frac{1}{2}\right)t^{-1/2} - \frac{2}{2} + 6\left(\frac{1}{3}\right)t^{-1/3} - \frac{3}{3}$$

$$= -t^{-3/2} - 2t^{-1/3}$$

$$= \frac{-1}{t^{3/2}} - \frac{2}{t^{1/3}} = \frac{-1}{\sqrt{t^3}} - \frac{2}{\sqrt[3]{t}}$$