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Parcial Cero

1) $f(x) = x^{1000} + 7000$

$\frac{d}{dx} 7000 = 7000x^{999}$

$= \frac{d}{dx} 1000 = 0 \quad f'(x) = 1000x^{999} + 0$

R// $f'(x) = 1000x^{999}$

2) $f(x) = 4x^8 + 10x + 2e^x$

$\frac{d}{dx}(4x^8) = 4 \cdot 8x^7 = 32n^7$

$\frac{d}{dx}(10x) = 10$

$\frac{d}{dx}(2e^x) = 2e^x$

R// $f'(x) = 32n^7 + 10 + 2e^2$

3. $f(x) = \frac{x^4 + 2x^2}{x^3} =$

$f(x) = x^{4-3} + 2x^{2-3}$

$f(x) = x^1 + 2x^{-1}$

$\frac{d}{dx} x^1 = 1x^{1-1} = 1$

$\frac{d}{dx}(2x^{-1}) = 2(-1)x^{-2} = -2x^{-2}$

R// $f'(x) = 1 - \frac{2}{x^2}$

4. $f(x) = 5x^5 + 10^3 + 2x^4$

$5(5x^4) = 25x^4$

$10^3 = 1000 = 0$

$2x^4 = 0$

// $f'(x) = 25x^4$

5. $f(x) = \frac{9}{x^{-3}} =$

$f(x) = 9x^{-3}$

$\frac{d}{dx}(9x^{-3}) = 9(3x^2) = 27x^2$

// $f'(x) = 27x^2$