

$$\textcircled{2} \quad y = 4/x^2 \quad x \neq 0 \quad (1)$$

$$y' = \frac{d}{dx} (4x^{-2})$$

$$y' = 4 \frac{d}{dx} (x^{-2})$$

$$y' = 4(-2x^{-3})$$

$$y' = \frac{-8}{x^3}$$

$$\textcircled{3} \quad y = \frac{5}{4+x^2} \quad (2)$$

$$y' = \frac{d}{dx} \left(\frac{5}{4} \right) + \frac{d}{dx} (x^2) = y' = 2x$$

$$y = \frac{5}{4+x^2}$$

$$y' = \frac{(4+x^2) \frac{d}{dx} (5) - (5) \frac{d}{dx} (4+x^2)}{(4+x^2)^2}$$

$$y' = \frac{0 - 5(2x)}{(4+x^2)^2}$$

$$y' = \frac{-10x}{(4+x^2)^2}$$

④ $y = x + 2/x$ $f(x) = x$

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

$$y' = 1 + (2 \cdot -1x^{-2})$$

$$y' = 1 - \frac{2}{x^2}$$

⑤ $y = (a - bx)^2$ $f(x) = a - bx$

$$a^2 - 2abx + b^2x^2$$

$$y' = \frac{d}{dx}(a^2) - \frac{d}{dx}(2abx) + \frac{d}{dx}(b^2x^2)$$

$$y' = -2ab + 2b^2x$$

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Calculo

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$$\textcircled{6} \quad y = 2/x^2 + 4$$

$$y' = \frac{(x^2 + 4) \frac{d}{dx}(2) - (2) \frac{d}{dx}(x^2 + 4)}{(x^2 + 4)^2}$$

$$y' = \frac{-2(2x)}{(x^2 + 4)^2} = \frac{-4x}{(x^2 + 4)^2}$$

$$\textcircled{7} \quad y = (7 + 2x)^2 = 7 + 4x + 4x^2$$

$$y' = \frac{d}{dx}(7) + \frac{d}{dx}(4x) + \frac{d}{dx}(4x^2)$$

$$y' = 4 + 4(2x)$$

$$y' = 4 + 8x$$

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⑧

$$y = 2 - x / x - 2$$

$$y' = (x-2) \frac{d}{dx} (2-x) - (2-x) \frac{d}{dx} (x-2)$$

$$y' = \frac{(x-2)(-1) - (2-x)}{(x-2)^2}$$

$$y' = \frac{-x+2-2+x}{(x-2)^2} = \frac{0}{(x-2)^2} = 0$$