

REFERENCIAS BIBLIOGRAFICAS



ALUMNA: DIANA CITLALI CRUZ RIOS

MAESTRO: ENRIQUE

ASIGNATURA: CALCULO

4TO SEMESTRE, BACHILLERATO EN  
ENFERMERIA

$$\textcircled{1} f(x) = \text{Sen } \frac{1}{2}x$$

$$y' = \text{Cos } \frac{1}{2}x \cdot \frac{1}{2}$$

$$y' = \frac{1}{2} \text{Cos } \frac{1}{2}x$$

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$$\textcircled{2} f(x) = \text{Cos}(7-2x)$$

$$y' = -\text{Sen}(7-2x) \cdot (7-2x)'$$

$$y' = -\text{Sen}(7-2x) \cdot (2)$$

$$y' = -2 \text{Sen}(7-2x)$$

$$\textcircled{3} f(x) = 3 \text{tg } 2x$$

$$y' = 3(\text{Sec}^2 2x)(2)$$

$$y' = 6 \text{Sec}^2 2x$$

$$\textcircled{4} f(x) = \text{Sec}(5x+2)$$

$$y' = \text{Sec}(5x+2) \tan(5x+2) \frac{d(5x+2)}{dx}$$

$$y' = \text{Sec}(5x+2) \tan(5x+2) \cdot 5$$

$$y' = 5 \text{Sec}(5x+2) \tan(5x+2)$$

$$\textcircled{5} f(x) = \sqrt[3]{\text{sen } x} = (\text{sen } x)^{1/3}$$

$$y' = \frac{1}{3} (\text{sen } x)^{1/3-1} \frac{d(\text{sen } x)}{dx}$$

$$y' = \frac{1}{3} (\text{sen } x)^{-2/3} \text{Cos } x \cdot \frac{d(x)}{dx}$$

$$y' = \frac{\text{Cos } x}{3 (\text{sen } x)^{2/3}}$$

$$\textcircled{6} f(x) = \text{Sen } 3x$$

$$y' = 3 (\text{Sen } 3x)^{3-1} \frac{d(\text{Sen } 3x)}{dx}$$

$$y' = 3 \text{Sen } 3x \text{Cos } 3x \cdot \frac{d(3x)}{dx} \Rightarrow 9 \text{Sen } 3x \text{Cos } 3x$$

$$\textcircled{7} f(x) = \text{cotg}(3-2x)$$

$$y' = -\text{Csc}^2(3-2x) \frac{d(3-2x)}{dx}$$

$$y' = -\text{Csc}^2(3-2x) \cdot 2$$

$$y' = -2 \text{Csc}^2(3-2x)$$

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$$\textcircled{8} f(x) = \text{Cos} \frac{x+1}{x-1}$$

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

$$y' = -\text{Sen} \frac{x+1}{x-1} \left[ \frac{(x-1) \frac{d(x+1)}{dx} - (x+1) \frac{d(x-1)}{dx}}{(x-1)^2} \right]$$

$$y' = -\text{Sen} \frac{x+1}{x-1} \left[ \frac{(x-1)(1) - (x+1)(1)}{(x-1)^2} \right]$$

$$y' = -\text{Sen} \frac{x+1}{x-1} \left[ \frac{x-1-x-1}{(x-1)^2} \right]$$

$$y' = -\text{Sen} \frac{x+1}{x-1} \left[ \frac{-2}{(x-1)^2} \right] = -\text{Sen} \frac{x+1}{x-1} \cdot \frac{-2}{(x-1)^2}$$

$$\textcircled{9} f(x) = \text{cot}(4x^2)$$

$$f'(x) = -\text{Csc}^2 4x^2 \cdot 8x$$

$$f'(x) = -8x \text{Csc}^2 4x^2$$

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$$\textcircled{10} f(x) = \text{cot}^2(4x)$$

$$f'(x) = 2(\text{cot } 4x)' \cdot -\text{Csc}^2 4x$$

$$f'(x) = -2 \cdot \text{Cot } 4x \cdot \text{Csc}^2 4x$$

$$\textcircled{11} f(x) = \text{Sec}(5x)$$

$$y' = \text{Sec}(5x) \tan(5x) \frac{d(5x)}{dx}$$

$$y' = \text{Sec}(5x) \tan(5x) \cdot 5$$

$$y' = 5 \text{Sec } 5x \tan 5x$$

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$$\textcircled{12} f(x) = \text{Csc} \left( \frac{x}{2} \right)$$

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

$$y' = -\text{Csc} \frac{x}{2} \cot \frac{x}{2} \left( \frac{1}{2} \right)$$

$$y' = \frac{-\text{Csc} \frac{x}{2} \cot \frac{x}{2}}{2}$$