

Dérivées

Calculer les dérivées des fonctions (après avoir donné Df)
suivantes :

$$f(x) = e^x$$

$$f(x) = e^{4x}$$

$$f(x) = e^{-5x}$$

$$f(x) = e^{5x+3}$$

$$f(x) = e^{x^2}$$

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

$$f(x) = xe^x$$

$$f(x) = e^{\sin x}$$

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

$$f(x) = e^{3x^2} \cos x$$

$$f(x) = \cos x^2$$

$$f(x) = \sin\left(3x + \frac{\pi}{4}\right)$$

$$f(x) = -\sin^2 x$$

$$f(x) = \frac{4x+7}{7x-1}$$

$$f(x) = (4x+5)^2$$

$$f(x) = 3\sqrt{x} + x^{5/3}$$

$$f(x) = e^{\frac{3x+1}{4x-1}}$$

$$f(x) = \tan x$$

$$f(x) = \frac{x^3-x-1}{3x^2+x+2}$$

$$f(x) = \ln\left(\frac{x+1}{x-1}\right)$$

$$f(x) = e^x \ln x$$

$$f(x) = \ln(\ln x)$$

$$f(x) = \ln(\ln(\ln x))$$

$$f(x) = e^{e^x}$$

$$f(x) = \frac{3 + \ln x}{e^x - 1}$$

$$f(x) = e^{ix}$$

$$f(x) = \frac{1 + \cos x}{1 + \sin x}$$

$$f(x) = \sin^n x \quad (n \in \mathbb{N})$$

$$f(x) = \sin x \cos x$$

$$f(x) = \frac{1}{\sin x}$$

$$f(x) = \frac{1}{\tan x}$$

$$f(x) = x^7 - x^3 + \sqrt{x} - \frac{1}{x} + \frac{1}{x^3}$$

$$f(x) = \sqrt{\sin x} \quad \left(0 \leq x \leq \frac{\pi}{2}\right)$$

$$f(x) = \sqrt{\ln x}$$

$$f(x) = \sqrt{e^x}$$

$$f(x) = \sum_{k=0}^n x^k$$