Tarea Derivadas

LA DERIVADA

I Realiza la derivada de las siguientes funciones

$f(x)=\dfrac{5x^2-3x}{2x-1}$ $\quad f(x)=\left(-2x^3+3\right)^5$ $\quad f(x)=\left(3x^2+1\right)\left(5x^6+7\right)$

$f(x)=\cos\left(3x^2+1\right)$ $\quad f(x)=\cos\left(3x^2+1\right)\sin\left(5x^6+7\right)$ $\quad f(x)=\dfrac{\left(3x^2-4\right)}{\cos x}$

$f(x)=\tan^2 x*\cos x$ $\quad f(x)=\sqrt{\tan^2 x-\sin x}$ $\quad f(x)=\left(3x^2+1\right)\left(5x^6+7\right)$

$f(x)=\dfrac{x}{1-\dfrac{1}{x}}$ $\quad f(x)=Sinx*Cosx$ $\quad f(x)=\dfrac{\sin(2x-1)}{\cos x}$

$f(x)=\left(3x^3-x^2-1\right)^2\tan\left(5x^6+7\right)$ $\quad f(x)=\dfrac{\left(5x^6+7\right)\left(3x-8x^3+1\right)}{4+x}$ $\quad f(x)=\left(3x^3+4x\right)^3\left(-5x^6+x\right)^5$

$f(x)=2x^4-7x$ $\quad f(x)=\dfrac{2x^4-7x}{x^2-1}$ $\quad f(x)=(2x^4-7)^4(x-1)^3$

$f(x)=\sin(x)\cos^2(x)$ $\quad f(x)=\cos(x)\tan(x)$ $\quad f(x)=e^{(\sin x+\cos x)}$

$f(x)=\arccos(3^x)$ $\quad f(x)=\ln(\cos x+e^x\sin x)$ $\quad f(x)=\dfrac{\left(x^3-2x\right)\sin x}{1+\cos x}$

$f(x)=\sin\left(\sqrt{x^3-3x}\right)$ $\quad f(x)=\dfrac{2x-2}{\sqrt{x^2-2x+1}}$ $\quad f(x)=\sin(\cos(\tan(2x+1)))$

$f(x)=5^{\left(3x-\sqrt{x^3-3x}\right)}$ $\quad f(x)=\sin\left(\arccos x^2\right)$ $\quad f(x)=\sec\left(\sqrt{x-1}\right)$

II Encuentra la ecuación de la recta tangente a *f(x)* en el punto indicado

a) $f(x)=3x^3-x$ en $x=5$
b) $f(x)=3/x$ en $x=-8$
c) $f(x)=ln(1+x)$ en $x=4$