色々な導関数 **2013-6-21**

$(\sin x)' =$ $(\cos x)' =$ $(\tan x)' =$

$(\mathrm{Sin}^{-1}x)' =$ $(\mathrm{Cos}^{-1}x)' =$ $(\mathrm{Tan}^{-1}x)' =$

$(e^x)' =$

いろいろな関数の導関数

□□□ $(x^a)'$ (a は実数)

$(x^a)' = ax^{a-1}$ (a は実数)

□□□ $(\sin x)'$

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

□□□ $(\cos x)'$

$(\cos x)' = -\sin x$

□□□ $(\tan x)'$

$(\tan x)' = \dfrac{1}{\cos^2 x}$

□□□ $\left(\mathrm{Sin}^{-1}x\right)'$

$\left(\mathrm{Sin}^{-1}x\right)' = \dfrac{1}{\sqrt{1-x^2}}$

□□□ $\left(\mathrm{Cos}^{-1}x\right)'$

$\left(\mathrm{Cos}^{-1}x\right)' = \dfrac{-1}{\sqrt{1-x^2}}$

□□□ $\left(\mathrm{Tan}^{-1}x\right)'$

$\left(\mathrm{Tan}^{-1}x\right)' = \dfrac{1}{1+x^2}$

□□□ $(e^x)'$

$(e^x)' = e^x$

□□□ $(a^x)'$

$(a^x)' = a^x \log a$

□□□ $(\log x)'$

$(\log x)' = \dfrac{1}{x}$

□□□ $(\log|x|)'$

$(\log|x|)' = \dfrac{1}{x}$

□□□ $(\log_a x)'$

$(\log_a x)' = \dfrac{1}{x \log a}$