DERIVE

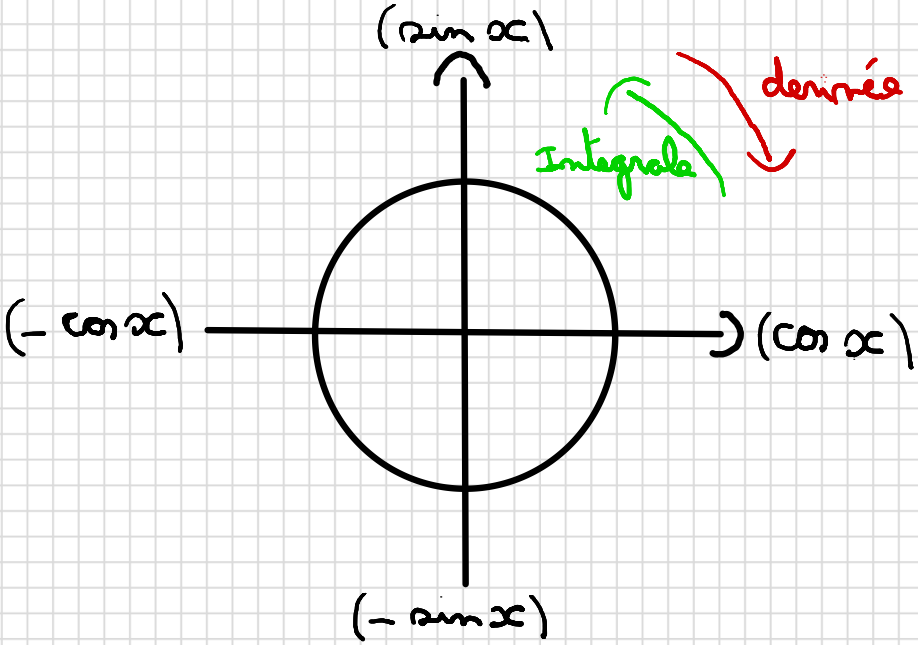
	$f(x)$	$f'(x)$	Intervalle de validité
①	$f(x)=k$	$f'(x)=0$	$]-\infty,+\infty[$
②	$f(x)=x$	$f'(x)=1$	$]-\infty,+\infty[$
③	$f(x)=mx+p$	$f'(x)=m$	$]-\infty,+\infty[$
④	$f(x)=x^n (n\in \mathbb{N}^*)$	$f'(x)=nx^{n-1}$	$]-\infty,+\infty[$
⑤	$f(x)=\frac{1}{x}$	$f'(x)=-\frac{1}{x^2}$	$]-\infty,0[$ ou $]0,+\infty[$
⑥	$f(x)=\sin x$	$f'(x)=\cos x$	$]-\infty,+\infty[$
⑦	$f(x)=\cos x$	$f'(x)=-\sin x$	$]-\infty,+\infty[$
⑧	$f(t)=\sin(\omega t+\varphi)$	$f'(t)=\omega\cos(\omega t+\varphi)$	$]-\infty,+\infty[$
⑨	$f(t)=\cos(\omega t+\varphi)$	$f'(t)=-\omega\sin(\omega t+\varphi)$	$]-\infty,+\infty[$
⑩	$f(x)=e^x$	$f'(x)=e^x$	$]-\infty,+\infty[$
⑪	$f(x)=e^{ax+b}$	$f'(x)=ae^{ax+b}$	$]-\infty,+\infty[$
⑫	$f(x)=\ln x$	$f'(x)=\frac{1}{x}$	$]-\infty,+\infty[$

$f(x)=\ln u$ | $f'(x)=\frac{u'}{u}$

PRIMITIVE

$f(x)$	$F(x)$
$f(x) = a$	$F(x) = ax + k$
$f(x) = x^n \ (n \neq -1)$	$F(x) = \frac{x^{n+1}}{n+1} + k$
$f(x) = \frac{1}{x^2}$	$F(x) = -\frac{1}{x} + k$
$f(x) = \frac{1}{\sqrt{x}}$	$F(x)\ 2\sqrt{x} + k$
$f(x) = \frac{1}{x}$	$F(x) = \ln(x) + k$
$f(x) = \cos(ax+b)$	$F(x) = \frac{1}{a}\cos(ax+b) + k$
$f(x) = \sin(ax+b)$	$F(x) = -\frac{1}{a}\cos(ax+b) + k$
$f(x) = \frac{u'}{1+u^2}$	$F(x) = \arctan(u) + k$
$f(x) = e^{ax+b}$	$F(x) = \frac{1}{a}e^{ax+b} + k$

FC TRIGO :



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