LE DERIVATE: RICAPITOLAZIONE DELLE DERIVATE DI FUNZIONI

$Dc = 0$	$Dx = 1$
$Dx^n = nx^{n-1}$	$D[f(x)]^n = nf'(x)[f(x)]^{n-1}$
$D[sen(x)] = cos(x)$	$D[sen(f(x))] = f'(x)cos(f(x))$
$D[cos(x)] = -sen(x)$	$D[cos(f(x))] = -f'(x)sen(f(x))$
$D[tg(x)] = \frac{1}{cos^2(x)}$	$D[tg(f(x))] = \frac{f'(x)}{cos^2(f(x))}$
$D[cotg(x)] = -\frac{1}{sen^2(x)}$	$D[cotg(f(x))] = -\frac{f'(x)}{sen^2(f(x))}$
$D[arcsen(x)] = \frac{1}{\sqrt{1-x^2}}$	$D[arcsen(f(x))] = \frac{f'(x)}{\sqrt{1-[f(x)]^2}}$
$D[arccos(x)] = -\frac{1}{\sqrt{1-x^2}}$	$D[arccos(f(x))] = -\frac{f'(x)}{\sqrt{1-[f(x)]^2}}$
$D[arctg(x)] = \frac{1}{1+x^2}$	$D[arctg(f(x))] = \frac{f'(x)}{1+[f(x)]^2}$
$D[arc\ cotg(x)] = -\frac{1}{1+x^2}$	$D[arc\ cotg(f(x))] = -\frac{f'(x)}{1+[f(x)]^2}$
$D[ln(x)] = \frac{1}{x}$	$D[ln(f(x))] = \frac{f'(x)}{f(x)}$
$D[log_a(x)] = \frac{1}{x}log_a(e)$	$D[log_a(f(x))] = \frac{f'(x)}{f(x)}log_a(e)$
$D[a^x] = a^x \cdot ln(a)$	$D[a^{f(x)}] = f'(x) \cdot a^{f(x)} \cdot ln(a)$
$D[e^x] = e^x$	$D[e^{f(x)}] = f'(x) \cdot e^{f(x)}$
$D[(f(x))^{g(x)}] = (f(x))^{g(x)}\left\{g'(x) \cdot ln(f(x)) + g(x)\frac{f'(x)}{f(x)}\right\}$	