TABEL DERIVATE

REGULI DERIVARE

$(cf)' = cf'$ $\quad (f \pm g)' = f' \pm g'$ $\quad (f \cdot g)' = f' \cdot g + f \cdot g'$

$(f \cdot g \cdot h)' = f' \cdot g \cdot h + f \cdot g' \cdot h + f \cdot g \cdot h'$ $\quad \left(\frac{f}{g}\right)' = \frac{f' \cdot g - f \cdot g'}{g^2}$ $\quad (f^{-1})'(y) = \frac{1}{f'(x)}$

$(f^g)' = g \cdot f^{g-1} \cdot f' + f^g \cdot \ln f \cdot g'$ $\quad (f \circ g)'(x) = (f(g(x))'(x) = f'(g(x)) \cdot g'(x)$

$c' = 0 \quad x' = 1 \quad (x^2)' = 2x \quad (x^3)' = 3x^2 \quad ,\ldots, \quad (x^n)' = nx^{n-1}$

$(x^p)' = px^{p-1}$	$(u^p)' = n \cdot u^{p-1} \cdot u'$
$\left(\frac{1}{x}\right)' = -\frac{1}{x^2}$	$\left(\frac{1}{u}\right)' = -\frac{1}{u^2} \cdot u'$
$\left(\frac{1}{x^n}\right)' = -\frac{n}{x^{n+1}}$	$\left(\frac{1}{u^n}\right)' = -\frac{n}{u^{n+1}} \cdot u'$
$\left(\sqrt{x}\right)' = \frac{1}{2\sqrt{x}}$	$\left(\sqrt{u}\right)' = \frac{1}{2\sqrt{u}} \cdot u'$
$\left(\sqrt[n]{x}\right)' = \frac{1}{n \cdot \sqrt[n]{x^{n-1}}}$	$\left(\sqrt[n]{u}\right)' = \frac{1}{n \cdot \sqrt[n]{u^{n-1}}} \cdot u'$
$(e^x)' = e^x$	$(e^u)' = e^u \cdot u'$
$(a^x)' = a^x \cdot lna$	$(a^u)' = a^u \cdot lna \cdot u'$
$(\ln x)' = \frac{1}{x} \quad (\lg x)' = \frac{1}{x \cdot \ln 10}$	$(\ln u)' = \frac{1}{u} \cdot u' \quad (\lg u)' = \frac{1}{u \cdot \ln 10} \cdot u'$
$(\log_b x)' = \frac{1}{x \cdot \ln b}$	$(\log_b u)' = \frac{1}{u \cdot \ln b} \cdot u'$
$(sinx)' = cosx$ $(cosx)' = -sinx$ $(tgx)' = \frac{1}{\cos^2 x} = tg^2 x + 1$ $(ctgx)' = -\frac{1}{\sin^2 x} = -(ctg^2 x + 1)$	$(\sin u)' = \cos u \cdot u'$ $(\cos u)' = -\sin u \cdot u'$ $(tgu)' = \frac{1}{\cos^2 u} \cdot u' = (tg^2 x + 1) \cdot u'$ $(ctgu)' = -\frac{1}{\sin^2 u} \cdot u' = -(ctg^2 u + 1) \cdot u'$
$(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$ $(\arccos x)' = -\frac{1}{\sqrt{1-x^2}}$ $(arctgx)' = \frac{1}{1+x^2}$ $(arcctgx)' = -\frac{1}{1+x^2}$	$(\arcsin u)' = \frac{1}{\sqrt{1-u^2}} \cdot u'$ $(\arccos u)' = -\frac{1}{\sqrt{1-u^2}} \cdot u'$ $(arctgu)' = \frac{1}{1+u^2} \cdot u'$ $(arcctgu)' = -\frac{1}{1+u^2} \cdot u'$