

Tabelas de Derivadas e de Primitivas

Tabela de Derivadas	
f	f'
$k, \mathbb{C}/k \in \mathbb{R}$	0
$u + v$	$u' + v'$
$ku, \mathbb{C}/k \in \mathbb{R}$	ku'
uv	$u'v + uv'$
$\frac{u}{v}$	$\frac{u'v - uv'}{v^2}$
$u^\alpha, \mathbb{C}/\alpha \in \mathbb{R}$	$\alpha u' u^{\alpha-1}$
e^u	$u' e^u$
$\ln u$	$\frac{u'}{u}$
$a^u, \mathbb{C}/a \in \mathbb{R}^+$	$u' a^u \ln a$
$\log_a u, \mathbb{C}/a \in \mathbb{R}^+ \setminus \{1\}$	$\frac{u'}{u \ln a}$
$\sin u$	$u' \cos u$
$\cos u$	$-u' \sin u$
$\operatorname{tg} u$	$u' \sec^2 u$
$\operatorname{cotg} u$	$-u' \operatorname{cosec}^2 u$
$\sec u$	$u' \sec u \operatorname{tg} u$
$\operatorname{cosec} u$	$-u' \operatorname{cosec} u \operatorname{cotg} u$
$\arcsen u$	$\frac{u'}{\sqrt{1-u^2}}$
$\arccos u$	$-\frac{u'}{\sqrt{1-u^2}}$
$\operatorname{arctg} u$	$\frac{u'}{1+u^2}$
$\operatorname{arccotg} u$	$-\frac{u'}{1+u^2}$

Tabela de Primitivas	
f	Pf
$k, \mathbb{C}/k \in \mathbb{R}$	$kx + C$
$u + v$	$Pu + Pv$
$ku, \mathbb{C}/k \in \mathbb{R}$	kPu
$u^\alpha u', \alpha \in \mathbb{R} \setminus \{-1\}$	$\frac{u^{\alpha+1}}{\alpha+1} + C$
$u' e^u$	$e^u + C$
$\frac{u'}{u}$	$\ln u + C$
$u' a^u, \mathbb{C}/\mathbb{R}^+ \setminus \{1\}$	$\frac{a^u}{\ln a} + C$
$u' \sin u$	$-\cos u + C$
$u' \cos u$	$\sin u + C$
$u' \operatorname{tg} u$	$-\ln \cos u + C$
$u' \operatorname{cotg} u$	$\ln \sin u + C$
$u' \sec^2 u$	$\operatorname{tg} u + C$
$u' \operatorname{cosec}^2 u$	$-\operatorname{cotg} u + C$
$\frac{u'}{\sqrt{1-u^2}}$	$\arcsen u + C$
$\frac{u'}{1+u^2}$	$\operatorname{arctg} u + C$

com C uma constante real.