TABLA DE DERIVADAS

FUNCIONES ALGEBRAICAS

Funciones	Derivadas
$y = a$	$y' = 0$
$y = x$	$y' = 1$
$y = u \pm v \pm \dots$	$y' = u' \pm v' \pm \dots$
$y = a \cdot u$	$y' = a \cdot u'$
$y = u \cdot v$	$y' = u' \cdot v + v' \cdot u$
$y = u \cdot v \cdot \dots$	$y' = u' \cdot v \dots + v' \cdot u \dots + \dots$
$y = \frac{u}{v}$	$y' = \frac{u' \cdot v - u \cdot v'}{v^2}$
$y = \frac{a}{u}$	$y' = \frac{-a \cdot u'}{u^2}$
$y = \frac{u}{a}$	$y' = \frac{u'}{a}$

FUNCIONES POTENCIALES EXPONENCIALES y de V.A.

Funciones	Derivadas
$y = u^a$	$y' = a \cdot u^{a-1} \cdot u'$
$y = u^{-a}$	$y' = \frac{-a \cdot u'}{u^{a+1}}$
$y = u^{\frac{1}{a}} = \sqrt[a]{u}$	$y' = \frac{1}{a} \cdot u^{\frac{1}{a}-1} \cdot u' = \frac{u'}{a\sqrt[a]{u^{a-1}}}$
$y = a^u$	$y' = a^u \cdot u' \cdot \ln a$
$y = u^v$	$y' = v \cdot u^{v-1} \cdot u' + u^v \cdot v' \cdot \ln u$
$y = e^u$	$y' = e^u \cdot u'$
$y = \lvert u \rvert$	$y' = \frac{u}{\lvert u \rvert} u'$

FUNCIONES CICLOMETRICAS

Funciones	Derivadas
$y = \text{arc sen}\, u$	$y' = \frac{u'}{\sqrt{1-u^2}}$
$y = \text{arc cos}\, u$	$y' = -\frac{u'}{\sqrt{1-u^2}}$
$y = \text{arc tg}\, u$	$y' = \frac{u'}{1+u^2}$
$y = \text{arc cotg}\, u$	$y' = -\frac{u'}{1+u^2}$
$y = \text{arc sec}\, u$	$y' = \frac{u'}{u\sqrt{u^2-1}}$
$y = \text{arc cosec}\, u$	$y' = -\frac{u'}{u\sqrt{u^2-1}}$

FUNCIONES CIRCULARES

Funciones	Derivadas
$y = \text{sen}\, u$	$y' = u' \cdot \cos u$
$y = \cos u$	$y' = -u' \cdot \text{sen}\, u$
$y = \text{tg}\, u$	$y' = \frac{u'}{\cos^2 u} = u' \cdot \left(1 + \text{tg}^2\, u\right)$
$y = \text{ctg}\, u$	$y' = \frac{-u'}{\text{sen}^2\, u} = -u' \cdot \left(1 + \text{ctg}^2\, u\right)$
$y = \sec u$	$y' = u' \cdot \sec u \cdot \text{tg}\, u = \frac{u' \cdot \text{sen}\, u}{\cos^2 u}$
$y = \text{csec}\, u$	$y' = -u' \cdot \text{csec}\, u \cdot \text{ctg}\, u = \frac{-u' \cdot \cos u}{\text{sen}^2\, u}$

FUNCION LOGARITMICA

Funciones	**Derivadas**
$y = \log_a u$	$y' = \dfrac{u'}{u \cdot \ln a} = \dfrac{u'}{u} \log_a e$
$y = \ln u$	$y' = \dfrac{u'}{u}$