



PREUNIVERSITARIO EL INGE ALEXISM93 TUTOR



FORMULARIO DE DERIVADAS BÁSICAS

1) $F(x) = k$ (constante)	$F'(x) = 0$
2) $F(x) = x$	$F'(x) = 1$
3) $F(x) = f \pm g$	$F'(x) = f' \pm g'$
4) $F(x) = k f$	$F'(x) = k f'$
5) $F(x) = x^n$	$F'(x) = n \cdot x^{n-1}$
6) $F(x) = f \cdot g$	$F'(x) = f' \cdot g + g' \cdot f$
7) $F(x) = \frac{f}{g}$	$F'(x) = \frac{f'g - g'f}{g^2}$
8) $F(x) = e^f$	$F'(x) = e^f \cdot f'$
9) $F(x) = a^f$	$F'(x) = a^f \cdot \ln(a) \cdot f'$
10) $F(x) = \ln(f)$	$F'(x) = \frac{f'}{f}$
11) $F(x) = \log_a(f)$	$F'(x) = \frac{\log_a e \cdot f'}{f}$
12) $F(x) = f^g$	$F'(x) = f^g [g' \cdot \ln(f) + \frac{g}{f} f']$
13) $F(x) = \text{sen}(f)$	$F'(x) = \cos(f) \cdot f'$
14) $F(x) = \text{cos}(f)$	$F'(x) = -\text{sen}(f) \cdot f'$
15) $F(x) = \text{tg}(f)$	$F'(x) = \text{sec}^2(f) \cdot f'$
16) $F(x) = \text{ctg}(f)$	$F'(x) = -\text{csc}^2(f) \cdot f'$
17) $F(x) = \text{sec}(f)$	$F'(x) = \text{sec}(f) \cdot \text{tg}(f) \cdot f'$
18) $F(x) = \text{csc}(f)$	$F'(x) = -\text{csc}(f) \cdot \text{ctg}(f) \cdot f'$
19) $F(x) = \text{arcsen}(f)$	$F'(x) = \frac{f'}{\sqrt{1-f^2}}$
20) $F(x) = \text{arccos}(f)$	$F'(x) = -\frac{f'}{\sqrt{1-f^2}}$
21) $F(x) = \text{arctg}(f)$	$F'(x) = \frac{f'}{1+f^2}$
22) $F(x) = \text{arcctg}(f)$	$F'(x) = -\frac{f'}{1+f^2}$
23) $F(x) = \text{arcsec}(f)$	$F'(x) = \frac{f'}{f\sqrt{f^2-1}}$
24) $F(x) = \text{arccsc}(f)$	$F'(x) = -\frac{f'}{f\sqrt{f^2-1}}$
25) $f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$	