

Tabla de derivadas compuestas

Función	Derivada	Ejemplo
$f(x) = k$	$f'(x) = 0$	$f(x) = 5 \rightarrow f'(x) = 0$
$f(x) = k \cdot x$	$f'(x) = k$	$f(x) = -5x \rightarrow f'(x) = -5$
$f(x) = u^n$	$f'(x) = n \cdot u^{n-1} \cdot u'$	$f(x) = (x^5 + 7)^3 \rightarrow f'(x) = 3(x^5 + 7)^2 \cdot 5x^4$
$f(x) = \sqrt{u}$	$f'(x) = \frac{u'}{2\sqrt{u}}$	$f(x) = \sqrt{5x^3} \rightarrow f'(x) = \frac{15x^2}{2\sqrt{5x^3}}$
$f(x) = e^u$	$f'(x) = e^u \cdot u'$	$f(x) = e^{5x^3} \rightarrow f'(x) = e^{5x^3} \cdot 15x^2$
$f(x) = a^u$	$f'(x) = a^u \cdot \ln(a) \cdot u'$	$f(x) = 4^{x^3} \rightarrow f'(x) = 4^{x^3} \cdot \ln(4) \cdot 3x^2$
$f(x) = \ln(u)$	$f'(x) = \frac{u'}{u}$	$f(x) = \ln(9x^5) \rightarrow f'(x) = \frac{45x^4}{9x^5}$
$f(x) = \log_a(u)$	$f'(x) = \frac{u'}{u \cdot \ln(a)}$	$f(x) = \log_3(-5x) \rightarrow f'(x) = \frac{-5}{-5x \cdot \ln(3)}$
$f(x) = \text{sen}(u)$	$f'(x) = \text{cos}(u) \cdot u'$	$f(x) = \text{sen}(5x^3) \rightarrow f'(x) = \text{cos}(5x^3) \cdot 15x^2$
$f(x) = \text{cos}(u)$	$f'(x) = -\text{sen}(u) \cdot u'$	$f(x) = \text{cos}(x^3) \rightarrow f'(x) = -\text{sen}(x^3) \cdot 3x^2$
$f(x) = \text{tan}(u)$	$f'(x) = \text{sec}^2(u) \cdot u'$	$f(x) = \text{tan}(-5x) \rightarrow f'(x) = \text{sec}^2(-5x) \cdot -5$