

Funktion	Derivator	Exempel 1	Exempel 2
$f(x) = ax^n$	$f'(x) = nx^{n-1}$	$f(x) = 2x^3$ $f'(x) = 3 \cdot 2x^{3-2} = 6x^2$	$f(x) = \frac{1}{\sqrt{x}} = x^{-\frac{1}{2}}$ $f'(x) = -0,5x^{-\frac{3}{2}} = -\frac{1}{2x^{\frac{3}{2}}}$
$f(x) = e^x$	$f'(x) = e^x$		
$f(x) = ae^x$	$f'(x) = ae^x$	$f(x) = 2e^x$ $f'(x) = 2e^x$	
$f(x) = e^{ax}$	$f'(x) = ae^{ax}$	$f(x) = e^{3x}$ $f'(x) = 3e^{3x}$	$f(x) = \frac{1}{e^x} = e^{-x}$ $f'(x) = -e^{-x} = -\frac{1}{e^x}$
$f(x) = ae^{kx}$	$f'(x) = k \cdot a \cdot e^{kx}$	$f(x) = 2e^{3x}$ $f'(x) = 3 \cdot 2 \cdot e^{3x} = 6e^{3x}$	
$f(x) = a^x$	$f'(x) = a^x \ln a$	$f(x) = 3^x$ $f'(x) = \ln 3 \cdot 3^x$	$f(x) = \frac{1}{3^x} = 3^{-x}$ $f'(x) = -3^{-x} \cdot \ln 3 = -\frac{\ln 3}{3^x}$
$f(x) = Ca^{kx}$	$f'(x) = k \cdot C \cdot \ln a \cdot a^{kx}$	$f(x) = 2^{3x}$ $f'(x) = 3 \cdot \ln 2 \cdot 2^{3x}$	$f(x) = 4 \cdot 2^{3x}$ $f'(x) = 4 \cdot 3 \cdot \ln 2 \cdot 2^{3x} = 12 \cdot \ln 2 \cdot 2^{3x}$