



Results

Proposition 1. *Let $a \in \mathbf{R}$ and $f : \mathbf{R} \rightarrow \mathbf{R}$ defined by $f(x) = a^x$. Then f is differentiable and its derivative is the function $f' : \mathbf{R} \rightarrow \mathbf{R}$ defined by $f'(x) = \ln(a)a^x$.*

This proposition encompasses the special case $f(x) = e^x$ then $f'(x) = e^x$.

