

Calculus 6.1 Key Points

Derivatives of Exponential Functions:

If $f(x) = a^x$ where a is a constant, then $f'(x) = a^x \cdot \ln(a)$

If $f(x) = a^{g(x)}$ then $f'(x) = a^{g(x)} \cdot \ln(a) \cdot g'(x)$

The derivative of e^x is e^x

Integrals of Exponential Functions:

$$\int a^x dx = \frac{1}{\ln(a)} \cdot a^x + c$$