

Logarithmic differentiation

After completing this section, students should be able to do the following.

- Identify situations where logs can be used to help find derivatives.
- Use logarithmic differentiation to simplify taking derivatives.
- Take derivatives of logarithms and exponents of all bases.
- Take derivatives of functions raised to functions.
- Recognize the difference between a variable as the base and a variable as the exponent.
- Work with the inverse properties of e^x and $\ln(x)$.