Calculus Worksheets

Quotient Rule & Logarithmic Differentiation

Practice Questions

Find the derivative for the following functions by using Logarithmic Differentiation:

1. \( y = \frac{x^2 - a}{e^{3x}} \)

2. \( y = \frac{2\sqrt{x} \sin(\sqrt{x^3})}{3x^2} \)

3. \( y = \frac{\sqrt{x+2}}{3\sqrt{2-x}} \)

4. \( y = \frac{\sqrt{a^2-x^2}}{x} \)

5. \( y = \sin^{-1} \left( \frac{x}{\sqrt{1+x^2}} \right) \)