Find the derivative

$$f(x) = \ln(x^2 + e) \quad \text{at } x = \sqrt{e}$$

Find the derivative

$$y = \frac{\sqrt{x}\left(x^3 - 1\right)^2}{x - 5}$$

Find the derivative

$$xy + \ln(xy) = 0$$

$$\int \frac{x^2+1}{x+1}dx$$

$$\int_0^1 \frac{x^2}{x^3+4}dx$$

$$\frac{d}{dx}\int_{2x^2}^{3}\frac{1}{t^2+1}dt$$