

Answer on Question #54866– Math – Calculus

If $f(x, y) = \tan^{-1}\frac{y}{x}$, find f_x

Solution

Using Chain rule

$$f_x = \frac{1}{1 + \left(\frac{y}{x}\right)^2} \cdot \left(-\frac{y}{x^2}\right) = -\frac{y}{x^2 + y^2}$$