

Implicit Differentiation Practice

1. Implicitly take the derivative of the following functions

(a) $x^2 + y^2 = 16$

(b) $x \ln(y) + y^3 = x$

2. Consider $xy^2 = 1$.

(a) Implicitly find the derivative of y .

(b) What is the slope of the curve at the point $(1, -1)$?

(c) What is the equation of the line tangent to the curve at $(1, -1)$?