

Example

If $f(x, y) = x^2y + \frac{x}{y^3}$, find the following partial derivatives.

(a) $f_x(x, y)$

(b) $f_y(x, y)$

(c) $f_y(5, 1)$

Example

If $f(x, y) = 4x^2 - 8xy^4 + 7y^5 - 3$ find the following:

(a) $f_x(x, y)$

(b) $f_y(x, y)$

(c) $f_{xx}(x, y)$

(d) $f_{yy}(x, y)$

(e) $f_{xy}(x, y)$

(f) $f_{yx}(x, y)$