

DATA605: Fundamentals of Computational Mathematics

Discussion 15

Donald Butler

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Chapter 12.3 Question 15

Find the first and second partial derivatives for the function $f(x, y) = \sin x \cos y$.

$$f_x(x, y) = \cos x \cos y$$

$$f_y(x, y) = -\sin x \sin y$$

$$f_{xx}(x, y) = -\sin x \cos y$$

$$f_{yy}(x, y) = -\sin x \cos y$$

$$f_{xy}(x, y) = -\cos x \sin y$$

$$f_{yx}(x, y) = -\cos x \sin y$$