



RESEARCH ARTICLE

Using Maple to Evaluate the Partial Derivatives of Two-Variables Functions

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Abstract—This study uses the mathematical software Maple for the auxiliary tool to evaluate the partial derivatives of two types of two-variables functions. We can obtain the infinite series forms of any order partial derivatives of these two types of two-variables functions by using differentiation term by term. At the same time, we provide two examples of two-variables functions to determine their partial derivatives practically. The research methods adopted in this study involved finding solutions through manual calculations and verifying these solutions by using Maple. This type of research method not only allows the discovery of calculation errors, but also helps modify the original directions of thinking from manual and Maple calculations. Therefore, Maple provides insights and guidance regarding problem-solving methods.

Keywords— partial derivatives; two-variables functions; infinite series forms; differentiation term by term; Maple
