Questions: Multivariate implicit differentiation

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Summary

A selection of questions for the study guide on multivariate implicit differentiation.

*Before attempting these questions, it is highly recommended that you read* [*Guide: Multivariate implicit differentiation*](../studyguides/multivariateimplicitdifferentiation.qmd)*.*

## Q1

Decide whether the following equations represent explicit or implicit functions.

1.1.

1.2.

1.3.

1.4.

1.5.

1.6.

1.7.

1.8.

1.9.

1.10.

## Q2

Use the multivariate implicit differentiation rule to find for each equation of the form , where is defined implicitly as a function of .

2.1.

2.2.

2.3.

2.4.

2.5.

2.6.

2.7.

2.8.

2.9.

2.10.

2.11.

2.12.

2.13.

2.14.

2.15.

## Q3

Use the multivariate implicit differentiation rule to find and for each equation of the form , where is defined implicitly as a function of and .

3.1.

3.2.

3.3.

3.4.

3.5.

3.6.

3.7.

3.8.

3.9.

3.10.

3.11.

3.12.

3.13.

3.14.

3.15.

[After attempting the questions above, please click this link to find the answers.](../answers/as-multivariateimplicitdifferentiation.qmd)

## Version history and licensing

v1.0: initial version created 05/25 by Donald Campbell as part of a University of St Andrews VIP project.

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