Answers: Logarithms

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Answers to questions relating to the study guide on logarithms.

*These are answers to:* [*Questions: Logarithms*](../questions/qs-logarithms.qmd)*.*

**Please attempt the questions before reading these answers!**

Throughout this answer sheet, the natural logarithm is written as .

## Q1

1.1. rearranged gives so .

1.2. rearranged gives so .

1.3. rearranged gives so .

1.4. rearranged gives so .

1.5. rearranged gives so .

1.6. rearranged gives so .

1.7. rearranged gives so .

1.8. rearranged gives so .

1.9. rearranged gives so .

1.10. rearranged gives so .

1.11. rearranged gives so .

1.12. rearranged gives so .

## Q2

The product rule:

The quotient rule:

The power rule:

The zero rule:

The identity rule:

2.1. The solution to is .

2.2. The solution to is .

2.3. The solution to is .

2.4. The solution to is .

2.5. The solution to is .

2.6. The solution to is .

## Q3

3.1. is equal to .

3.2. is equal to .

3.3. is equal to .

3.4. is equal to .

3.5. is equal to .

## Version history and licensing

v1.0: initial version created 08/23 by Zoë Gemmell as part of a University of St Andrews STEP project.

* v1.1: edited 05/24 by tdhc.

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