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Hugh Neill and Douglas Quadling
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Mathematics for the IB Diploma

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Series editor Hugh Neill

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Introduction

Mathematics Higher Level (two books) has been written especially for the International Baccalaureate Mathematics HL examination. This is Book 1.

The book is divided into small groups of connected chapters, each covering one part of the syllabus. There is a small amount of material which extends a topic beyond the syllabus as printed, with the aim of enhancing students' appreciation of the subject. This is indicated by an asterisk (*) at the appropriate place in the text.

Occasionally within the text paragraphs appear in a grey box. These paragraphs may help to give insight, suggest different approaches or provide background to a topic.

Students are expected to have access to graphic display calculators and the text places considerable emphasis on their potential for supporting the learning of mathematics.

Numerical work is presented in a form intended to discourage premature approximation. In ongoing calculations inexact numbers appear in decimal form like 3.456... , signifying that the number is held in a calculator to more places than are given. Numbers are not rounded at this stage; the full display could be, for example, 3.456 123 or 3.456 789. Final answers are then stated with some indication that they are approximate, for example '3.46, correct to 3 significant figures'.

There are plenty of exercises. After each group of connected chapters there is a Review exercise which includes some questions from past International Baccalaureate examinations, but on a different syllabus. At the time of writing, there are no current versions of the Higher Level examinations, so there is no backlog of examination questions on the newer parts of the syllabus.

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