Getting ready to teach
Cambridge O Level Mathematics – Additional (4037)
We review our syllabuses regularly to make sure they continue to meet the needs of our schools.

To make it easier for teachers and students who use more than one syllabus, we have improved accessibility and clarity by considering our Cambridge Upper Secondary Mathematics suite as a whole.

In updating our Cambridge O Level Mathematics courses, we have worked with experienced maths teachers and subject experts to make them well structured and easier to understand, while keeping familiar features that teachers and schools value.

We have focused on the breadth and depth of the content to cover fundamental mathematical knowledge and preparing students for the demands of the next stage of learning, if they choose to progress to further study.

Changes to content

We have updated the content in response to changes to our other Upper Secondary Mathematics qualifications as follows:

- removed Indices and Surds, which will be assumed knowledge
- added a new topic: Geometry of a Circle
- renamed Calculus as Differentiation and Integration.

There are no other major changes to the content.

We have updated the Notes/Examples column, clarifying the depth of teaching and learning required for each learning outcome.

We have updated the aims and assessment objectives. The wording has been updated but the meaning is the same. The new syllabus will also include details of how it helps students develop the Cambridge learner attributes – confident, responsible, reflective, innovative and engaged.

We are using consistent learning objectives where appropriate across our Cambridge Upper Secondary Mathematics syllabuses to support teachers who deliver more than one course within the suite.

We have added:
- A new topic: Geometry of a Circle.

We have removed:
- Indices and Surds, which will be assumed knowledge.
Changes to assessment

We have introduced a non-calculator paper:
Paper 1 will be a non-calculator paper. Paper 2 will continue to assess calculator skills.

How does this affect teaching?

• The teaching time is not affected by these changes.
• Learners will need to practise solving problems and showing their working without a calculator.
• The new topic Geometry of a Circle needs to be included in planning.
• Make sure students are familiar with working with surds and indices, as these will now be assumed knowledge.
• Teachers should use the additional guidance in the new 'Notes/Examples' column in the syllabus content.

Resource Plus

Resource Plus for Cambridge IGCSE™ Mathematics (0580) is already available through the School Support Hub. Designed to help you deliver engaging lessons and explain challenging topics, it has many resources you can use for Cambridge O Level Mathematics – Additional (4037).

Previously available by subscription only, Resource Plus is now available to all Cambridge International Schools at no extra cost through our School Support Hub.

First assessment from 2025
What support will be available to help teachers deliver the updated course?

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Early 2026, after first examination in 2025

**Example Candidate Responses**

These materials will be available through our [School Support Hub](https://www.cambridgeinternational.org/olevel), which also includes details of endorsed resources for this syllabus, and access to a subject forum.

Learn more: [www.cambridgeinternational.org/olevel](https://www.cambridgeinternational.org/olevel)

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