



**CAMBRIDGE**  
International Education

# Syllabus

## Cambridge IGCSE™ Statistics 0479

Use this syllabus for exams in 2027.

Exams are available in the June series.

This syllabus is not available in all administrative zones.

Please check the syllabus page at [www.cambridgeinternational.org/0479](http://www.cambridgeinternational.org/0479) to see if this syllabus is available in your administrative zone.



### Version I

For the purposes of screen readers, any mention in this document of Cambridge IGCSE refers to Cambridge International General Certificate of Secondary Education.

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## Why choose Cambridge?

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We work with schools worldwide to build an education that shapes knowledge, understanding and skills. Together, we give learners the confidence they need to thrive and make a positive impact in a changing world.

As part of the University of Cambridge, we offer a globally trusted and flexible framework for education from age 3 to 19, informed by research, experience, and listening to educators.

With recognised qualifications, high-quality resources, comprehensive support and valuable insights, we help schools prepare every student for the opportunities and challenges ahead.

### Qualifications that are recognised and valued worldwide

From the world's top-ranked universities to local higher education institutions, Cambridge qualifications open doors to a world of opportunities.

### Setting a global standard

With over 160 years of experience in delivering fair, valid and reliable assessments to students worldwide, we offer a global, recognised performance standard for international education.

### Your path, your way

Schools can adapt our curriculum, high-quality teaching and learning resources and flexible assessments to their local context. Our aligned offer helps Cambridge schools support every learner to reach their potential and thrive.

### Learning with lasting impact

Cambridge learners build subject knowledge and conceptual understanding, and develop a broad range of skills, learning habits and attributes to help make them ready for the world.

### Improving learning outcomes through data-led insight and action

Our trusted baseline and diagnostic assessments, together with our insights and evaluation service, help schools turn data into knowledge and actionable insights, to inform teaching decisions and improve learner outcomes.

### Bringing together a community of experts

We bring together the collective knowledge of experts and our diverse community of educators worldwide, supporting them to learn from one another and share ideas and information.

### Tackling the climate crisis together

We believe that education is key to tackling the climate crisis. Together with Cambridge schools, we can empower young people with the skills and knowledge to take action on climate change, helping them be ready for the world.

### **School feedback:** 'We think the Cambridge curriculum is superb preparation for university.'

**Feedback from:** Christoph Guttentag, Dean of Undergraduate Admissions, Duke University, USA

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# 1 Why choose this syllabus?

## Key benefits

Cambridge IGCSE is the world's most popular international qualification for 14 to 16 year olds, although it can be taken by students at any age. Taught by over 5000 schools in 150 countries, it is tried, tested and trusted.

Students can choose from 70 subjects in any combination, including 30 languages.

Our programmes promote a thorough knowledge and understanding of a subject and help to develop the skills learners need for their next steps in education or employment.

**Cambridge IGCSE Statistics** supports learners in gaining knowledge of basic ideas, methods and terminology in statistics and probability. Learners will develop confidence in applying statistical techniques and analysing data as well as interpreting statistical statements, calculations and diagrams. Learners will also develop reasoning and communication skills enabling them to solve statistical and probability problems in theoretical and real-life contexts.

Cambridge IGCSE Statistics provides a strong foundation of statistical knowledge both for further study in statistics and for developing concepts which are relevant in a wide range of other subjects.

Our approach in Cambridge IGCSE Statistics encourages learners to be:

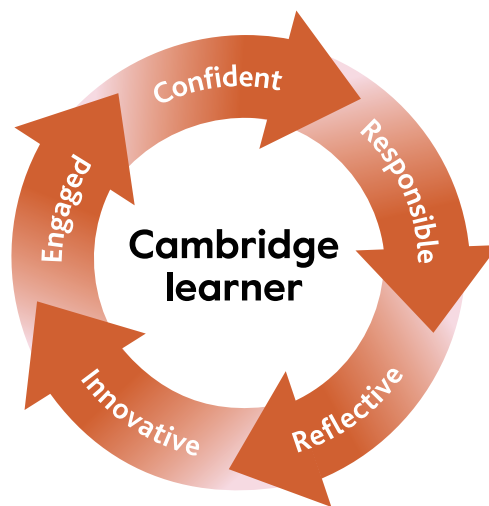
**confident**, in understanding and interpreting statistics, asking questions and scrutinising conclusions

**responsible**, by taking ownership of their learning, and applying their knowledge of statistical techniques and processes so that they can reason and solve problems

**reflective**, by understanding the relevance of statistics in other subjects and in real-world applications, in reasoning with results and justifying the approaches they have selected

**innovative**, by applying their knowledge and understanding to reach conclusions about data from familiar and unfamiliar contexts

**engaged**, by the power of statistics to provide an understanding of quantitative and qualitative information and to inform critical thinking.



**School feedback:** ‘The strength of Cambridge IGCSE qualifications is internationally recognised and has provided an international pathway for our students to continue their studies around the world.’

**Feedback from:** Gary Tan, Head of Schools and CEO, Raffles Group of Schools, Indonesia

## Qualifications that are recognised and valued worldwide

Cambridge qualifications prepare and equip learners with the skills they need to thrive at university and beyond. The world's best higher education institutions recognise our qualifications and value the critical thinking skills, independent research abilities and deep subject knowledge that Cambridge learners bring.

We continually work with universities and colleges in every part of the world to ensure that they understand and accept our qualifications. Cambridge IGCSE provides a springboard to the Cambridge Advanced stage, as well as other post-16 routes. The combination of knowledge and skills in Cambridge IGCSE Statistics gives learners a solid foundation for further study of statistics and supports the study of Cambridge International AS and A Level subjects which include a statistical element.

Many universities require a combination of Cambridge International AS & A Levels and Cambridge IGCSEs or equivalent to meet their entry requirements.

UK ENIC, the national agency in the UK for the recognition and comparison of international qualifications and skills, has carried out an independent benchmarking study of Cambridge IGCSE and found it to be comparable to the standard of the GCSE in the UK. This means students can be confident that their Cambridge IGCSE qualifications are accepted as equivalent to UK GCSEs by leading universities worldwide.

Learn more at [www.cambridgeinternational.org/recognition](http://www.cambridgeinternational.org/recognition)

**School feedback:** 'Cambridge IGCSE is one of the most sought-after and recognised qualifications in the world. It is very popular in Egypt because it provides the perfect preparation for success at advanced level programmes.'

**Feedback from:** Managing Director of British School of Egypt BSE

## Supporting teachers

We believe education works best when teaching and learning are closely aligned to the curriculum, resources and assessment. Our high-quality teaching support helps to maximise teaching time and enables teachers to engage learners of all backgrounds and abilities.

We aim to provide the following support for each Cambridge qualification:

- Syllabus
- Specimen question papers and mark schemes
- Specimen paper answers
- Schemes of Work
- Example candidate responses
- Past papers and mark schemes
- Principal examiner reports for teachers

These resources are available on the School Support Hub at [www.cambridgeinternational.org/support](http://www.cambridgeinternational.org/support), our secure online site for Cambridge teachers. Your exams officer can provide you with a login.

Additional teaching & learning resources are also available for many syllabuses and vary according to the nature of the subject and the structure of the assessment of each syllabus. These can include ready-built lesson materials, digital resources and multimedia for the classroom and homework, guidance on assessment and much more. Beyond the resources available on the Schools Support Hub, a wide range of endorsed textbooks and associated teaching and learning support are available from Cambridge at [www.cambridge.org/education](http://www.cambridge.org/education) and from other publishers. Resources vary according to the nature of the subject and the structure of the assessment of each syllabus.

You can also contact our global Cambridge community or talk to a senior examiner on our discussion forums.

Sign up for email notifications about changes to syllabuses, including new and revised products and services, at [www.cambridgeinternational.org/syllabusupdates](http://www.cambridgeinternational.org/syllabusupdates)

## Professional development

Find the next step on your professional development journey.

- **Introduction courses** – An introduction to Cambridge programmes and qualifications. For teachers who are new to Cambridge programmes or new to a specific syllabus.
- **Focus on Teaching courses** – These are for teachers who want to explore a specific area of teaching and learning within a syllabus or programme.
- **Focus on Assessment courses** – These are for teachers who want to understand the assessment of a syllabus in greater depth.
- **Marking workshops** – These workshops help you become more familiar with what examiners are looking for, and provide an opportunity to raise questions and share your experiences of the syllabus.
- **Enrichment Professional Development** – Transform your approach to teaching with our Enrichment workshops. Each workshop focuses on a specific area of teaching and learning practice.
- **Cambridge Professional Development Qualifications (PDQs)** – Practice-based programmes that transform professional learning for practicing teachers. Available at Certificate and Diploma level.

For more information visit [www.cambridgeinternational.org/support-for-teachers](http://www.cambridgeinternational.org/support-for-teachers)

### Supporting exams officers

We provide comprehensive support and guidance for all Cambridge exams officers. Find out more at: [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)



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## 2 Syllabus overview

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### Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- build knowledge of statistics and probability concepts and develop an understanding of statistical analysis
- apply appropriate methods based on these concepts when analysing data and working with numerical information
- understand that much of the information encountered in everyday life has a statistical base and evaluate the accuracy and credibility of this information
- analyse data from a variety of sources and contexts and interpret both primary statistical information and the conclusions of statistical analysis
- solve problems encountered whilst carrying out statistical analysis and build an awareness of the limitations of interpretation and conclusions made from statistical analysis
- form appropriate conclusions from the results of the application of statistical methods and communicate reasoning and conclusions clearly
- develop a positive attitude towards the study of statistics that promotes enquiry, builds confidence, offers enjoyment and could lead to further study across a range of subjects.

We are an education organisation and politically neutral. The contents of this syllabus, examination papers and associated materials do not endorse any political view. We endeavour to treat all aspects of the exam process neutrally.



## Content overview

Candidates for Cambridge IGCSE Statistics study the following topics:

- 1 Data and its collection
- 2 Representation of data
- 3 Frequency distributions
- 4 Measures of central tendency
- 5 Quartiles, percentiles and measures of dispersion
- 6 Transformations of data sets
- 7 Probability
- 8 Probability distributions
- 9 Crude and standardised rates
- 10 Index numbers
- 11 Bivariate distributions
- 12 Time series



## Assessment overview

All candidates take two components. Candidates will be eligible for grades A\* to G.

All candidates take:		and:	
<b>Paper 1</b>	2 hours 15 minutes	<b>Paper 2</b>	2 hours 15 minutes
100 marks	50%	100 marks	50%
<ul style="list-style-type: none"> <li>• Questions will be a mixture of lengths and styles</li> <li>• A calculator should be used</li> <li>• Candidates should show all working in the spaces provided on the question paper</li> <li>• Essential working must be shown for full marks to be awarded.</li> </ul>		<ul style="list-style-type: none"> <li>• Questions will be a mixture of lengths and styles</li> <li>• A calculator should be used</li> <li>• Candidates should show all working in the spaces provided on the question paper</li> <li>• Essential working must be shown for full marks to be awarded.</li> </ul>	
Externally assessed		Externally assessed	

Information on availability is in the **Before you start** section.

## Assessment objectives

The assessment objectives (AOs) are:

### AO1 Knowledge and understanding of statistical techniques

Candidates should be able to:

- demonstrate knowledge and understanding of basic concepts and procedures in the collection, organisation, presentation and analysis of data
- demonstrate knowledge and understanding of basic ideas of probability
- recall and apply relevant methods of analysis
- perform statistical and probability calculations accurately
- apply combinations of statistical skills.

### AO2 Interpretation, communication and problem-solving

Candidates should be able to:

- justify the use of specific methods of analysis in a given situation
- select methods to solve problems
- interpret results in relation to the context
- identify assumptions necessary for statistical analysis
- communicate reasoning and conclusions clearly.

### Weighting for assessment objectives

The approximate weightings allocated to each of the assessment objectives (AOs) are summarised below.

#### Assessment objectives as a percentage of the qualification

Assessment objective	Weighting in IGCSE %
AO1 Knowledge and understanding of statistical techniques	80–90
AO2 Interpretation, communication and problem-solving	10–20
Total	100

#### Assessment objectives as a percentage of each component

Assessment objective	Weighting in components %	
	Paper 1	Paper 2
AO1 Knowledge and understanding of statistical techniques	80–90	80–90
AO2 Interpretation, communication and problem-solving	10–20	10–20
Total	100	100

## 3 Subject content

This syllabus gives you the flexibility to design a course that will interest, challenge and engage your learners. Where appropriate you are responsible for selecting resources and examples to support your learners' study. These should be appropriate for the learners' age, cultural background and learning context as well as complying with your school policies and local legal requirements.

1 Data and its collection	Notes and examples
1 Understand the terms: <ul style="list-style-type: none"> <li>• population</li> <li>• sample</li> <li>• census</li> <li>• representative sample.</li> </ul>	
2 Understand the features of the different types of sampling. <ul style="list-style-type: none"> <li>• simple random sampling</li> <li>• systematic sampling</li> <li>• stratified sampling</li> <li>• quota sampling.</li> </ul>	A sampling frame is needed in all cases except quota.
3 Understand that some sampling methods can be biased.	e.g. sampling the first 10 people who arrive at school when conducting a survey about methods of transport to school.
4 Use a random number table to select: <ul style="list-style-type: none"> <li>• a simple random sample</li> <li>• a systematic sample</li> <li>• a stratified sample.</li> </ul>	Problems will define the population and include an extract from a random number table. Including showing whether or not a given sample is representative in terms of one or more of the strata.
5 Understand the use of open and closed questions in a survey.	Including the advantages and disadvantages of each.
6 Classify data using the terms: <ul style="list-style-type: none"> <li>• qualitative</li> <li>• quantitative</li> <li>• discrete</li> <li>• continuous.</li> </ul>	

2 Representation of data	Notes and examples
1 Represent and interpret data in frequency tables and two-way tables.	
2 Represent and interpret data in: <ul style="list-style-type: none"> <li>• pictograms</li> <li>• bar charts</li> <li>• pie charts</li> <li>• Venn diagrams</li> <li>• box-and-whisker diagrams</li> <li>• stem-and-leaf diagrams</li> </ul>	<p>Drawing of pictograms is not required.</p> <p>Simple, sectional, percentage sectional, multiple bar charts.</p> <p>Including comparative pie charts.</p> <p>Identification of outliers is not required.</p> <p>Including back-to-back diagrams.</p>
3 Understand the advantages and disadvantages of different ways of representing data.	
3 Frequency distributions	Notes and examples
1 Know the difference between an ungrouped and a grouped frequency distribution, and understand the advantages and disadvantages of combining data into a grouped frequency distribution.	Variables in groups defined by, for example, $30 - \text{under } 40$ , $30 \leq x < 40$ .
2 Identify class limits, boundaries, midpoints and widths for a grouped frequency distribution.	<p>For discrete data, class limits, boundaries, midpoints and widths will be required.</p> <p>For continuous data, class boundaries, midpoints and widths will be required.</p>
3 Represent a grouped frequency distribution as a histogram and interpret a histogram.	Histograms with unequal class widths will have the vertical axis labelled 'frequency density'.
4 Represent a grouped frequency distribution as a frequency polygon and interpret a frequency polygon.	<p>Groups will have equal class widths.</p> <p>Including comparing a pair of frequency distributions.</p>
5 Form a cumulative frequency distribution from a frequency distribution and vice versa.	
6 Represent the cumulative frequency distribution of a continuous variable as a cumulative frequency polygon or curve, and interpret a cumulative frequency polygon or curve.	

4 Measures of central tendency	Notes and examples
1 Calculate the mean, and find the median and mode, of a small data set and an ungrouped frequency distribution.	Including solving problems where, for example, the mean is given.
2 Estimate the mean and the median of a grouped frequency distribution.	The median may be found from a cumulative frequency polygon or curve, or by linear interpolation.
3 Identify the modal class of a grouped frequency distribution.	
4 Understand the advantages and disadvantages of each measure of central tendency and justify the use of a particular measure of central tendency in context.	
5 Quartiles, percentiles and measures of dispersion	Notes and examples
1 Find the quartiles of a small data set and an ungrouped frequency distribution.	
2 Estimate the quartiles and percentiles of a grouped frequency distribution, and find the percentile corresponding to a given value of the variable.	From a cumulative frequency polygon or curve and by linear interpolation. Including estimation of frequencies in given parts of the distribution.
3 Calculate the range of a small data set and an ungrouped frequency distribution.	
4 Calculate the interquartile range of a small data set and an ungrouped frequency distribution.	
5 Estimate of the interquartile range of a grouped frequency distribution.	From a cumulative frequency polygon or curve, and by linear interpolation.
6 Calculate the standard deviation of a small data set and an ungrouped frequency distribution, and calculate an estimate of the standard deviation of a grouped frequency distribution.	Candidates are expected to recall and use a formula for standard deviation, e.g.: $\text{Standard deviation} = \sqrt{\frac{\sum(x - \bar{x})^2}{n}}$ $\text{Standard deviation} = \sqrt{\frac{\sum x^2}{n} - \left(\frac{\sum x}{n}\right)^2}$
7 Understand the advantages and disadvantages of each measure of dispersion and justify the use of a particular measure of dispersion in context.	

6 Transformations of data sets	Notes and examples
1 Understand the effect on the mean and the standard deviation of adding a constant to each value and of multiplying each value by a constant.	
2 Understand the effect on the median and the interquartile range of adding a constant to each value and of multiplying each value by a constant.	
3 Understand the effect on a statistical measure of a distribution if extra values are introduced or some of the existing values are removed.	For example, the median will increase, decrease or stay the same.
4 Calculate the mean and the standard deviation of a data set formed by combining two data sets with known means and standard deviations.	Including use of the mean of one data set and the combined mean to find the mean of the second data set.
5 Use means and standard deviations of distributions to scale data values for comparison and interpretation.	Including scaling to a given mean and standard deviation and standardising to a mean of 0 and a standard deviation of 1.
6 Make comparisons between distributions by considering measures of central tendency and measures of dispersion.	For example, from known means and standard deviations of two distributions, identify the distribution with, generally, the larger values, and identify the distribution with, generally, values which are most consistent.
7 Probability	Notes and examples
1 Understand and use probability notation.	<p>The probability of <math>A = P(A)</math></p> <p><math>P(\text{Not } A) = P(A')</math></p> <p><math>P(A \text{ and } B) = P(A \cap B)</math></p> <p><math>P(A \text{ or } B) = P(A \cup B)</math></p>
2 Calculate probabilities in simple cases.	<p>Including selections made with or without replacement.</p> <p>Knowledge of permutations and combinations formulas is not required.</p> <p>Probabilities might be given as fractions, decimals, or percentages.</p>
3 Find the probability of an event not happening from the probability of it happening.	Use of $P(A') = 1 - P(A)$

continued

7 Probability continued	Notes and examples
4 Know and use the addition rule.	$P(A \cup B) = P(A) + P(B) - P(A \cap B)$
5 Understand the meaning of mutually exclusive events and independent events and apply relevant rules.	Use of $P(A \cup B) = P(A) + P(B)$ for mutually exclusive events. Use of $P(A \cap B) = P(A) \times P(B)$ for independent events.
6 Calculate conditional probability in simple cases.	Use of $P(A   B) = P(A \cap B) / P(B)$ is not required.
7 Use tree diagrams to represent combined events and to aid calculations of probabilities of combined events.	

8 Probability distributions	Notes and examples
1 Calculate probabilities of all possible outcomes in simple cases and present the probability distribution in a table.	Know that $\sum P(x)$ is 1.
2 Calculate expectation of a variable from a probability distribution and solve problems involving expectation.	

9 Crude and standardised rates	Notes and examples
1 Calculate crude rate of events in a population.	Including births, deaths, accidents. Rates will be defined, for example, as births per thousand of the population.
2 Understand the reason for finding a standardised rate.	
3 Calculate standardised rates of events in a population, given a standard population.	Standardised rate is a weighted average of rates in subgroups.
4 Form conclusions about a population, or more than one population, from values of crude and standardised rates.	
5 Use crude rates to find the total number of events in a population or in a subgroup of a population.	

10 Index numbers	Notes and examples
1 Calculate price relatives for goods and/or services in a specific year relative to a base year.	With price set to 100 for the base year.
2 Understand the meaning of a price relative.	
3 Calculate a weighted aggregate index number from weights and price relatives of a combination of items.	Weights will be from base year expenditure. Weights may need to be calculated.
4 Interpret and use a weighted aggregate index number.	
5 Understand the limitations of using a weighted aggregate index number.	Understand the effect of changes in weights. Understand that changes in weights are caused by changes in consumption.

11 Bivariate distributions	Notes and examples
1 Understand the difference between an independent and a dependent variable.	
2 Understand and use the terms: <ul style="list-style-type: none"> <li>• positive correlation</li> <li>• negative correlation</li> <li>• weak correlation</li> <li>• strong correlation</li> <li>• no correlation.</li> </ul>	Including identifying correlation between variables given in a scatter diagram or table.
3 Plot bivariate data to form a scatter diagram.	
4 Draw a line of best fit on a scatter diagram, by eye and by using the method of semi-averages.	For the method of semi-averages, there will be an even number of data pairs.
5 Find the equation of a line of best fit.	Equation expressed in the form $y = mx + c$ .
6 Use a line of best fit to estimate the value of one variable, given the value of the other.	From the graph of the line or its equation.
7 Understand the assumptions made when using a line of best fit for estimation.	Including the limitations of extrapolation.



12 Time series	Notes and examples
1 Plot data to form a time series graph.	
2 Understand the reasons for finding moving averages.	
3 Calculate and plot moving average values.	May include centring. Understand when centring is appropriate.
4 Understand trend and draw a trend line by eye using moving average values.	
5 Understand seasonal variation and calculate seasonal components.	Calculation of seasonal components (average seasonal variation) <ul style="list-style-type: none"> <li>• from tables of data values and moving average values</li> <li>• from time series graphs and trend lines.</li> </ul>
6 Use a trend line and seasonal component to make predictions and understand assumptions made and limitations of the process.	

**Faculty feedback:** ‘Understanding how and why our climate is changing and providing the knowledge and skills to explore the challenges plays a key role in every student’s education.’

**Feedback from:** Dr Amy Munro-Faure, Head of Education and Student Engagement of Cambridge Zero

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## 4 Details of the assessment

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All candidates take **two** compulsory components. Candidates will be eligible for grades A\* to G.

Both papers assess AO1 Knowledge and understanding of statistical techniques and AO2 Interpretation, communication and problem-solving.

Both papers consist of questions which range in length and style. Questions may require short answers, single stage and multistage calculations, drawing or completion of charts, graphs and tables.

Questions may assess more than one topic from the subject content.

For both papers, candidates write their answers on the question paper. They must show all necessary working in the spaces provided.

### Additional materials for exams

For both papers, candidates should have the following:

- a calculator
- a pair of compasses
- a protractor
- ruler.

Tracing paper may be used as an additional material for both papers. Candidates may not bring their own tracing paper but may request it during the examination.

Algebraic or graphical calculators are **not** permitted. Please see the *Cambridge Handbook* at [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide) for guidance on use of calculators in the examinations.

The Additional materials list for exams is updated before each series. You can view the list for the relevant series and year on our website in the Phase 4 – Before the exams section of the *Cambridge Exams Officers' Guide* at [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)

### Paper 1

Written paper, 2 hours 15 minutes, 100 marks.

A calculator is required.

Candidates answer all questions.

This paper consists of questions based on any part of the subject content.

This paper will be weighted at 50% of the total qualification.

This written paper is an externally set assessment, marked by Cambridge.

### Paper 2

Written paper, 2 hours 15 minutes, 100 marks.

A calculator is required.

Candidates answer all questions.

This paper consists of questions based on any part of the subject content.

This paper will be weighted at 50% of the total qualification.

This written paper is an externally set assessment, marked by Cambridge.

## Mathematical conventions

The guidance below outlines the conventions used in Cambridge examinations and we encourage students to follow these conventions.

### Working with graphs and diagrams

- Plotted points should be clearly marked, for example, as small crosses (x), and must be plotted to an accuracy of within half of the smallest square on the grid.
- Where a relationship shown on a graph is:
  - linear, the trend line or line of best fit should be ruled
  - non-linear, a smooth curve should be drawn to show the trend.
- Values should be drawn and read to an accuracy of within half of the smallest division on the grid.
- A **sketch** does not have to be accurate or to scale, but it **must**:
  - show the most important features
  - have labelled axes.

### Communicating

- Where candidates are asked to show their working, they cannot gain full marks without clearly communicating their method, even if their final answer is correct.
- A numerical answer should not be given as a combination of fractions and decimals.

### Accuracy

- Where answers are not exact values, they should be given to a suitable degree of accuracy unless the required level of accuracy is specified in the question.
- To obtain an answer correct to an appropriate degree of accuracy, a higher degree of accuracy will often be needed within the working.

## Command words

Command words and their meanings help candidates know what is expected from them in the exams. The table below includes command words used in the assessment for this syllabus. The use of the command word will relate to the subject context.

Command word	What it means
<b>Calculate</b>	work out from given facts, figures or information
<b>Comment</b>	give an informed opinion
<b>Compare</b>	identify/comment on similarities and/or differences
<b>Consider</b>	review and respond to given information
<b>Define</b>	give precise meaning
<b>Describe</b>	state the points of a topic / give characteristics and main features
<b>Determine</b>	establish with certainty
<b>Explain</b>	set out purposes or reasons / make the relationships between things clear / say why and/or how and support with relevant evidence
<b>Identify</b>	name/select/recognise
<b>Interpret</b>	identify meaning or significance in relation to the context
<b>Justify</b>	support a case with evidence/argument
<b>Plot</b>	mark point(s) on a graph
<b>Predict</b>	suggest what may happen based on available information
<b>Show (that)</b>	provide structured evidence that leads to a given result
<b>Sketch</b>	make a simple freehand drawing showing the key features
<b>State</b>	express in clear terms
<b>Suggest</b>	apply knowledge and understanding to situations where there are a range of valid responses in order to make proposals / put forward considerations
<b>Summarise</b>	select and present the main points, without detail

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## 5 What else you need to know

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This section is an overview of other information you need to know about this syllabus. It will help to share the administrative information with your exams officer so they know when you will need their support. Find more information about our administrative processes at [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)

### Before you start

#### Previous study

We recommend that learners starting this course should have studied a mathematics curriculum such as the Cambridge Lower Secondary programme or equivalent national educational framework.

We do not expect learners starting this course to have previously studied statistics.

#### Guided learning hours

We design Cambridge IGCSE syllabuses to require about 130 guided learning hours for each subject. This is for guidance only. The number of hours a learner needs to achieve the qualification may vary according to each school and the learners' previous experience of the subject.

#### Availability and timetables

All Cambridge schools are allocated to one of six administrative zones. Each zone has a specific timetable. Find your administrative zone at [www.cambridgeinternational.org/adminzone](http://www.cambridgeinternational.org/adminzone). This syllabus is **not** available in all administrative zones. To find out if this syllabus is available to your administrative zone check the syllabus page at [www.cambridgeinternational.org/0479](http://www.cambridgeinternational.org/0479)

You can view the timetable for your administrative zone at [www.cambridgeinternational.org/timetables](http://www.cambridgeinternational.org/timetables)

You can enter candidates in the June exam series.

Check you are using the syllabus for the year the candidate is taking the exam.

Private candidates can enter for this syllabus. For more information, please refer to the *Cambridge Guide to Making Entries*.

#### Combining with other syllabuses

Candidates can take this syllabus alongside other Cambridge International syllabuses in a single exam series. The only exceptions are:

- syllabuses with the same title at the same level.

Cambridge IGCSE, Cambridge IGCSE (9–1) and Cambridge O Level syllabuses are at the same level.

#### Group awards: Cambridge ICE

Cambridge ICE (International Certificate of Education) is a group award for Cambridge IGCSE. It encourages schools to offer a broad and balanced curriculum by recognising the achievements of learners who pass exams in a range of different subjects.

Learn more about Cambridge ICE at [www.cambridgeinternational.org/cambridgeice](http://www.cambridgeinternational.org/cambridgeice)

## Making entries

Exams officers are responsible for submitting entries. We encourage them to work closely with you to make sure they enter the right number of candidates for the right combination of syllabus components. Entry option codes and instructions for submitting entries are in the *Cambridge Guide to Making Entries*. Your exams officer has access to this guide.

### Exam administration

To keep our exams secure, we produce question papers for different areas of the world, known as administrative zones. We allocate all Cambridge schools to an administrative zone determined by their location. Each zone has a specific timetable.

Some of our syllabuses offer candidates different assessment options. An entry option code is used to identify the components the candidate will take relevant to the administrative zone and the available assessment options.

### Support for exams officers

We know how important exams officers are to the successful running of exams. We provide them with the support they need to make entries on time. Your exams officer will find this support, and guidance for all other phases of the Cambridge Exams Cycle, at [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)

### Retakes

Candidates can retake the whole qualification as many times as they want to. Information on retake entries is at [www.cambridgeinternational.org/retakes](http://www.cambridgeinternational.org/retakes)

### Language

This syllabus and the related assessment materials are available in English only.

## Accessibility and equality

### Syllabus and assessment design

At Cambridge we recognise that our candidates have highly diverse socio-economic, cultural and linguistic backgrounds, and may also have a variety of protected characteristics. Protected characteristics include special educational needs and disability (SEND), religion and belief, and characteristics related to gender and identity.

We follow accessible design principles to make our syllabuses and assessment materials as accessible and inclusive as possible. We review language accessibility, visual resources, question layout and the contexts used in questions. Using this approach means that we give all candidates the fairest possible opportunity to demonstrate their knowledge, skills and understanding.

### Access arrangements

Our design principles aim to make sure our assessment materials are accessible for all candidates. To further minimise barriers faced by candidates with SEND, illness or injury, we offer a range of access arrangements and modified papers. This is the principal way in which we comply with our duty to make 'reasonable adjustments', as guided by the UK Equality Act 2010.

**Important:**

Requested access arrangements should be based on evidence of the candidate's barrier to taking an assessment and should also reflect their normal way of working. This is explained in section 1.3 of the *Cambridge Handbook* [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)

- For Cambridge to approve an access arrangement, we need to agree that it constitutes a reasonable adjustment and does not affect the security or integrity of the assessment.
- Details of our standard access arrangements and modified question papers are available in section 1.3 of the *Cambridge Handbook* [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)
- Centres are expected to check the availability of access arrangements and modified question papers at the start of the course. All applications should be made by the deadlines published in section 1.3 of the *Cambridge Handbook* [www.cambridgeinternational.org/eoguide](http://www.cambridgeinternational.org/eoguide)
- Contact us at the start of the course to find out if we can approve an access arrangement that is not included in the list of standard access arrangements.
- Candidates who cannot access parts of the assessment may be able to receive an award based on the parts they have completed.

## After the exam

### Grading and reporting

Grades A\*, A, B, C, D, E, F or G indicate the standard a candidate achieved at Cambridge IGCSE.

A\* is the highest and G is the lowest. 'Ungraded' means that the candidate's performance did not meet the standard required for grade G. 'Ungraded' is reported on the statement of results but not on the certificate.

In specific circumstances your candidates may see one of the following letters on their statement of results:

- Q (PENDING)
- X (NO RESULT).

These letters do not appear on the certificate.

On the statement of results, Cambridge IGCSE is shown as INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION (IGCSE).

On certificates, Cambridge IGCSE is shown as International General Certificate of Secondary Education.

## How students and teachers can use the grades

Assessment at Cambridge IGCSE has two purposes:

- 1 to measure learning and achievement  
The assessment confirms achievement and performance in relation to the knowledge, understanding and skills specified in the syllabus.
- 2 to show likely future success  
The outcomes help predict which students are well prepared for or likely to be successful in a particular course or career.  
The outcomes help students choose the most suitable course or career.

## Changes to this syllabus for 2027

This is a new syllabus for first examination in 2027.

### **You must read the whole syllabus before planning your teaching programme.**

In addition to reading the syllabus, you should refer to the specimen assessment materials. The specimen papers will help your students become familiar with exam requirements and command words in questions. The specimen mark schemes show how students should answer questions to meet the assessment objectives.

Any textbooks endorsed to support the syllabus for examination from 2027 are suitable for use with this syllabus.



Syllabuses and specimen materials represent the final authority on the content and structure of all of our assessments.

With a Customer Services team available 24 hours a day, 6 days a week, and dedicated regional teams supporting schools in 160 countries, we understand your local context and are here to guide you so you can provide your learners with everything they need to prepare for Cambridge IGCSE.

### **Quality management**

We are committed to providing exceptional quality. In line with this commitment, our quality management system for the provision of international education programmes and qualifications for students aged 5 to 19 is independently certified as meeting the internationally recognised standard, ISO 9001:2015. Learn more at [www.cambridgeinternational.org/about-us/our-standards/](http://www.cambridgeinternational.org/about-us/our-standards/)





**School feedback:** ‘While studying Cambridge IGCSE and Cambridge International A Levels, students broaden their horizons through a global perspective and develop a lasting passion for learning.’

**Feedback from:** Zhai Xiaoning, Deputy Principal, The High School Affiliated to Renmin University of China

We are committed to making our documents accessible in accordance with the WCAG 2.1 Standard. We are always looking to improve the accessibility of our documents. If you find any problems or you think we are not meeting accessibility requirements, contact us at **info@cambridgeinternational.org** with the subject heading: Digital accessibility. If you need this document in a different format, contact us and supply your name, email address and requirements and we will respond within 15 working days.

Cambridge International Education, The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA, United Kingdom  
t: +44 (0)1223 553554      email: info@cambridgeinternational.org      www.cambridgeinternational.org