IGCSE Mathematics

Exam Technique · 应试技巧

You are marked on what you write down, not on what you understand. This guide covers what each command word asks you to do, how the marks are counted, and the mistakes that cost marks most often when English is your second language. 分数只给写在纸上的内容。本指南教你把会的东西写成得分点。

Command words – what each one asks you to do

Every question starts with a command word. It tells you exactly how much to write. Answering the wrong command word is the fastest way to lose marks you deserved.

State / Give / Name / Write down 说出 — a short answer, no reason needed. One or two words is often enough. Do not explain – you get no extra marks for it and you lose time.

Define 定义 — say exactly what a word means. Learn the syllabus wording; a rough version usually misses the mark.

Describe 描述 — say WHAT happens, in order. No reasons. For a graph, say the shape and where it changes.

Explain 解释 — say WHY it happens. Your answer must contain the word because, so, or therefore. If it does not, you have probably described instead.

Suggest 建议 — give a sensible answer for a situation you have not studied. Use what you know and say why it would work.

Calculate 计算 — work out a number. Write the formula, put the numbers in, then the answer with its unit.

Compare 比较 — write about both things in the same sentence: 'A is bigger than B'. Writing a paragraph on A and then one on B usually loses half the marks.

Complete 完成 — fill in the table, the diagram or the sentence. Check you have filled EVERY box – an empty box is a lost mark, always.

Draw / Sketch 画图 — draw with a sharp pencil and a ruler. Label everything the question mentions. A sketch does not need scale, but the shape must be right.

Predict 预测 — say what will happen next, using the pattern in the data.

Identify 识别 — pick out the answer from what is given – in a diagram, a table or a passage.

How the marks work

The marks in brackets tell you how many things to write. [3] means three separate points. Count them as you write.

You cannot get the same mark twice. Saying one thing in three ways is one mark.

Write on the lines given. The number of lines is a hint about the length of the answer.

Always write the unit. A right number with no unit often loses the last mark.

In a calculation, show your working. If the number is wrong but the method is right, you still get most of the marks. With no working, a wrong number gets zero.

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If you get part (a) wrong, still do part (b) with your own answer. You get the marks for using it correctly.

Never leave a multiple-choice answer blank. There is no penalty for a wrong guess.

Core and Supplement: if you sit the Extended paper you are examined on both. Check which topics your paper covers before you revise.

Mistakes that cost marks (and are easy to fix)

Using an everyday word instead of the science word. Write 'evaporation', not 'the water goes away'. The technical word is the mark.

Saying 'higher' or 'faster' without saying than what. Always finish the comparison.

Using 'it' when there are two things in the sentence. The examiner cannot guess which one you mean, so the mark is not given. Repeat the noun.

Copying the question back. 'The temperature rises because the temperature gets higher' is not an answer.

Writing a long answer with the real point buried in the middle. Put the answer in the FIRST sentence.

Leaving a table cell or a diagram label empty because you are not sure. A guess costs nothing and might be right.

Running out of time on the last question because of a long answer earlier. Watch the marks: about one minute per mark.

Practical papers and the alternative-to-practical

Name the measuring instrument and how precisely it reads: 'a thermometer, to the nearest 1 °C'.

Say what you keep the same. The control variables are usually separate marks and are the most commonly forgotten answer on the paper.

Repeat readings and take an average, and say so.

When drawing a graph: label both axes with the quantity AND unit, choose a scale that fills more than half the grid, plot small neat crosses, and draw one smooth best-fit line.

Read values off a graph by drawing dotted construction lines and leaving them on the page – they show the examiner where your number came from.

For a safety question, name a real hazard from THIS experiment and what you would do about it. 'Be careful' scores nothing.

Reading, writing and longer answers

In a comprehension question, the marks are in the passage. Find and use the words that are there rather than writing from memory.

For 'give two reasons', number your answers 1. and 2. so the examiner can see two separate points.

In an extended answer, write in short paragraphs, one idea each. Long unbroken writing hides the points that would have scored.

In business and economics, use the case study. An answer that never mentions the company in the question is capped.

When a question is worth six marks or more, spend half a minute listing your points before you start writing.