

Exam technique

How the exams work, technique for every type of question, and every command word

How the exams work

Pearson Edexcel GCSE Mathematics (1MA1) Foundation tier is examined by three written papers of equal weight, all sat in the same exam series, and your grade (1 to 5) comes from your total across all three. Any Foundation topic can be tested on any paper, and each paper starts with short, easier questions and builds up to longer problems. Across the three papers, number and ratio, proportion and rates of change carry about a quarter of the marks each, algebra about a fifth, and geometry and measures and probability and statistics share the rest; about half the marks test standard techniques, a quarter reasoning and communicating, and a quarter problem solving.

Paper	Time	Marks	Calculator	What's on it
Paper 1 (1MA1/1F)	1 h 30 min	80	Not allowed	Any Foundation topic: number; algebra; ratio, proportion and rates of change; geometry and measures; probability; statistics. Everything is worked by hand, so written arithmetic, fraction, decimal and percentage methods, estimation, answers in terms of π and exact values of sin, cos and tan can all be tested here. Questions start easier and get harder.
Paper 2 (1MA1/2F)	1 h 30 min	80	Allowed	Any Foundation topic, as for Paper 1: number; algebra; ratio, proportion and rates of change; geometry and measures; probability; statistics. With a calculator allowed, the numbers can be less friendly (compound interest over several years, trigonometry, circle and volume work), but algebra, angle and reasoning questions appear here too. Questions start easier and get harder.
Paper 3 (1MA1/3F)	1 h 30 min	80	Allowed	Any Foundation topic, as for Papers 1 and 2: number; algebra; ratio, proportion and rates of change; geometry and measures; probability; statistics. It is a separate paper with different questions, not a second half of Paper 2, so a topic tested on Paper 2 can come up again here. Questions start easier and get harder.

Exam technique

In the weeks before

- Revise the whole Foundation course, not just recent topics: any topic can come up on any of the three papers. Paper 1 (no calculator) is usually the first in the timetable, so practise written methods from the start.
- In the last month, sit at least one full 80-mark paper a week in a single 90-minute sitting, alternating non-calculator and calculator papers.
- Mark every paper strictly with its mark scheme, then sort each lost mark: 'didn't know it' (relearn the topic), 'knew it but slipped' (slow down and check that kind of step) or 'ran out of time' (get faster on the early questions).
- Learn by heart the formulas you are expected to know: area of a rectangle, triangle, parallelogram, trapezium and circle, circumference of a circle, volume of a prism (including a cylinder), Pythagoras' theorem, and sin, cos and tan in a right-angled triangle. Formulas for the volume and surface area of a cone or a sphere are given in the question when you need them.
- Recent exam series have provided a formulae sheet: ask your teacher what you will have. Learn the formulas anyway, because the sheet does not tell you which formula a question needs, and looking things up costs time.
- Know the key facts without thinking: times tables to 12×12 , squares to 15^2 , cubes of 1 to 5 and 10, primes up to 50, common fraction, decimal and percentage equivalents ($1/8 = 0.125 = 12.5\%$), metric conversions, and the angle facts in their exact wording.
- Short, frequent practice beats cramming: 20 to 30 minutes most days, mixing topics, keeps every method fresh for papers where any topic can appear.
- Practise with the calculator you will use in the exam, so you know where its fraction, power, standard form and degree settings are.

The night before and the morning of each paper

- Pack a clear pencil case: two black pens, an HB pencil, a sharpener, an eraser, a ruler marked in centimetres and millimetres, a protractor and a pair of compasses. Tracing paper may be used in the exam, and it helps with rotations and reflections.
- For Papers 2 and 3, bring a scientific calculator that is allowed in exams (not a phone, and not one that does algebra or stores notes), with a good battery and set to degrees: many models show a small D on the display.
- The night before, read through your cheatsheet of formulas and the facts you keep forgetting, then stop. Don't start a new topic.
- Sleep properly and eat breakfast: careless slips multiply when you are tired, and on Foundation papers slips on easy questions are costly.
- On the morning of Paper 1, warm up for ten minutes with a few non-calculator calculations: a long multiplication, a fraction of an amount, a percentage. Before Papers 2 and 3, do two or three calculations to check your calculator's settings.

The first five minutes

- Fill in your name, centre number and candidate number, then read the front cover. It tells you to show all your working, that diagrams are not accurately drawn unless it says otherwise, and (on the calculator papers) to use 3.142 for π if your calculator has no π button.
- Flick through the whole paper in under a minute to see how it builds up and where the longer questions are. Then start at Question 1.
- The marks for each part are shown in brackets, and each question ends with its total, e.g. (Total for Question 6 is 4 marks). Use the marks to judge how much working is expected.
- Write down your start time and your checkpoints: the time 45 minutes in, when you want to be about halfway through the marks, and the time when 10 minutes are left.
- If it helps, jot anything you are worried about forgetting, such as SOH CAH TOA or the angle facts, in a spare corner of the paper.
- Don't jump to the end to try the hardest questions first: the early questions are the quickest marks, and getting them done settles your nerves.

Timing

- You have 90 minutes for 80 marks, just over a minute a mark. Budget about one minute per mark and you finish with around 10 minutes to check.
- A 1-mark question should take about a minute; a 5-mark problem about five or six minutes, including reading it.
- Questions get harder as you go, and the last questions on each paper are aimed at grades 4 and 5. Work steadily through the early questions so you have time in hand for the longer problems at the end.
- Check at 45 minutes: you want to have attempted about half of the 80 marks. If you are well behind, speed up on the questions you know and skip the ones that stall you.
- If a question has taken twice as many minutes as it has marks, write down what you have, put a mark in the margin next to it and move on. Come back to it at the end.
- Never leave a question blank because time ran out: in the last few minutes, write the first step of any question you have not started, as it can earn a method mark.

Reading the question

- Read the whole question, then read the last sentence again: it tells you exactly what to give, for example 'Give your answer as a fraction in its simplest form', 'correct to 1 decimal place' or 'in pounds'.
- Underline the key words and numbers: each, per, total, remaining, not, at least, more than, exact, and every unit.
- Worded problems often spread the information across a sentence, a table and a diagram. Tick off each piece of information as you use it: nearly every number you are given is needed.
- Check the units before you calculate. A length in centimetres and another in metres, or a time in minutes with a speed in km/h, must be changed to the same units first.
- When a question has parts (a), (b) and (c), later parts often build on earlier answers. The word 'Hence' means you must use the answer you have just found.
- Most diagrams are labelled 'Diagram NOT accurately drawn'. Don't measure them: work out angles and lengths from the facts given.
- Answer the question that is asked: if it asks how many packs to buy, the answer is a whole number of packs, not an area.

Short questions (1 to 3 marks)

- The first half of each paper is mostly short questions on single skills: place value and ordering, reading scales, simplifying and substituting, angle facts, probability, and reading charts and tables. Quick, accurate answers here are the backbone of every Foundation grade.
- 'Write down' questions need no working, though a quick jotting can stop a slip. For anything else, write at least one line of working.
- Give the answer in the form asked: fractions and ratios in their simplest form, whole numbers when you are counting things, the stated number of decimal places.
- Write probabilities as fractions, decimals or percentages. Answers such as '3 out of 10', '3 in 10' or '3 : 10' lose the accuracy mark.
- When you complete a table, frequency tree, two-way table or Venn diagram, check that the rows and columns add up to the totals given.
- If a question asks you to tick a box or circle an answer, give exactly one unless it says otherwise.
- When you solve an equation, write the answer, e.g. $x = 6$, on the answer line. Only showing that 6 works when you substitute it may not earn full marks.

Multi-step and problem-solving questions

- About a quarter of the Foundation marks are for solving problems and another quarter for reasoning and communicating, so many questions don't tell you which method to use: 'Which pack is better value?', 'Does she have enough paint?', 'How much will the flooring cost?'
- Before you write, decide what the final answer has to be, then work back to the facts you need to get there. If there are more than two steps, jot a quick plan.
- Label each step so the examiner can follow it and award a mark for each correct stage, e.g. 'Area of floor = $4.5 \times 3.2 = 14.4 \text{ m}^2$ ', then 'Packs needed = $14.4 \div 2.5 = 5.76$, so 6 packs'.
- Round to suit the situation: round up for things you must buy (6 packs, not 5.76) and down for how many you can afford or make.
- When you compare options, compare like with like: the same units and the same amount for each, such as the cost of 100 g or the number of grams for £1.
- Decision questions ('Is Ravi correct?', 'Can she afford it?') need a clear sentence answer backed by your numbers, e.g. 'No, because the total is £62.40, which is more than £60.' Correct working with no conclusion can lose the final mark.
- Even if you can't finish, each correct step can score, because the mark scheme gives process marks stage by stage. Write down every step you can do.

Show that, explain and give reasons

- In a 'Show that' question the answer is given, so all the marks are for the working. Write every step, including the calculation that produces the given value, and finish with a line that matches it.
- If the given value is rounded, show a more accurate value first, e.g. ' $x = 6.08\dots$, which is 6.1 to 1 decimal place'.
- Can't do a 'Show that' part? Use the given answer in the next part anyway: you can still get full marks there.
- 'Explain' and 'Give a reason' answers need a short sentence containing a mathematical fact or a number, e.g. 'The probabilities add up to 1.1, but they should add up to 1.' Vague answers such as 'it is too big' score nothing.
- When a question says 'Give reasons for your answer', write a reason for each angle you find, using the full fact: 'angles on a straight line add up to 180° ', 'alternate angles are equal', 'corresponding angles are equal', 'base angles of an isosceles triangle are equal'. Names such as Z angles or F angles do not get the marks.
- Other reasons to know word for word: angles in a triangle add up to 180° , angles in a quadrilateral add up to 360° , angles around a point add up to 360° , vertically opposite angles are equal, co-interior angles add up to 180° , and the exterior angles of a polygon add up to 360° .
- 'Spot the mistake' questions show someone else's working: say exactly which step is wrong and what it should have been, e.g. 'She divided by the new price instead of the original price.'

Showing working: how the marks are given

- Edexcel mark schemes use M marks for a correct method, P marks for each correct step in the process of solving a problem, A marks for an accurate answer (usually only after the method marks), B marks for a correct answer or fact on its own, and C marks for communication, such as a correct conclusion or reason.
- A correct answer with no working usually gets full marks, but a wrong answer with no working gets nothing. With working, one slip costs one mark instead of all of them.
- If the question says 'You must show your working' or 'You must show how you get your answer', an answer with no working may score nothing, even if it is right.
- Set out your working in order, top to bottom, in the space for that part. Marks cannot be moved from one part of a question to another, so answer each part in its own space.
- Write angles and lengths you find on the diagram as well as in your working: working on a diagram can be credited.
- Put your final answer on the answer line. If your answer line disagrees with your working, or you give two different answers, you can lose the accuracy mark.
- One slip early on doesn't have to cost everything: if you carry on correctly with your wrong value, you can often still pick up the later method marks.

Units, rounding and estimation

- If units are printed on the answer line (cm^2 , £, km/h), give your answer in those units. If they are not, write the units yourself.
- If the question gives an accuracy, use exactly that: 'correct to 1 decimal place', 'to 3 significant figures', 'to the nearest pound'. If it gives none, give the exact answer, or at least 3 significant figures if it is not exact.
- Write money with two decimal places (£3.60, not £3.6), and never mix pounds and pence in one answer (£3.60 or 360p, not £3.60p).
- Keep full values while you work, using the Ans key or writing at least four or five figures, and round only the final answer. Rounding part-way through can push your answer outside the range the mark scheme accepts.
- Time is not decimal: 0.25 hours is 15 minutes, 1.5 hours is 1 hour 30 minutes, and 2 hours 45 minutes is 2.75 hours. Multiply or divide by 60 to convert.
- Area and volume units convert by squared and cubed factors: $1 \text{ m}^2 = 10\,000 \text{ cm}^2$, $1 \text{ m}^3 = 1\,000\,000 \text{ cm}^3$, and $1 \text{ litre} = 1000 \text{ cm}^3$.
- For 'Work out an estimate', round every number to 1 significant figure, write the rounded numbers down, then calculate. Working with the exact numbers usually scores nothing, even if the answer looks close.
- Error intervals use inequalities: a length of 7.6 cm rounded to 1 decimal place lies in
$$7.55 \leq x < 7.65$$
; if 7.6 was truncated,
$$7.6 \leq x < 7.7$$
.
- Bearings are three figures (065° , not 65°) and angles are in degrees.

Paper 1: working without a calculator

- Set out written methods clearly: column addition and subtraction, long or grid multiplication, and short division. A correct method with one arithmetic slip still earns method marks.
- Decimals: $0.3 \times 0.02 = 0.006$ (count the decimal places). To divide by a decimal, multiply both numbers by 10 or 100 first: $4.2 \div 0.06 = 420 \div 6 = 70$.
- Fractions: use a common denominator to add or subtract, multiply tops and bottoms to multiply, and to divide, flip the second fraction and multiply. Change mixed numbers to improper fractions first.
- Percentages: build them from 10%, 5% and 1%. For 35% of 60: $10\% = 6$, so $30\% = 18$, $5\% = 3$, and $35\% = 21$.
- Know the exact values: sin and cos of 0° , 30° , 45° , 60° and 90° , and tan of 0° , 30° , 45° and 60° . For example $\sin 30^\circ = 1/2$, $\cos 60^\circ = 1/2$ and $\tan 45^\circ = 1$.
- When a question says 'Give your answer in terms of π ', leave π in: a circle of radius 5 cm has area $25\pi \text{ cm}^2$.
- Check with an inverse operation or a rough estimate: 38×21 should be close to $40 \times 20 = 800$.
- Paper 1 tests every topic, not just number: angles, algebra, probability and graphs all appear, with numbers chosen so you can work by hand.

Papers 2 and 3: using your calculator well

- Know your model: the fraction key, the $S \leftrightarrow D$ key that switches between fraction and decimal answers, the square and power keys, roots, π , the $\times 10^x$ key for standard form, the Ans key and the negative ($-$) key.
- Use brackets or the fraction template for anything above or below a fraction line: $(12.4 + 3.8) \div (2.1 \times 0.6)$, not $12.4 + 3.8 \div 2.1 \times 0.6$.
- Write down the full calculator display before you round, e.g. $17.35294118 = 17.4$ to 3 significant figures. It shows your method if the rounding goes wrong.
- Squaring a negative number needs brackets: $(-3)^2 = 9$, but typing -3^2 gives -9 .
- Use multipliers for percentages: an increase of 15% is $\times 1.15$, a decrease of 8% is $\times 0.92$, and 3% compound interest for 5 years is $\times 1.03^5$. To undo a percentage change, divide by the multiplier.
- Check the calculator is in degrees before any trigonometry. To find an angle, use the inverse keys (SHIFT then sin, cos or tan).
- Change a time in decimal hours to hours and minutes: $2.35 \text{ hours} = 2 \text{ hours} + 0.35 \times 60 \text{ minutes} = 2 \text{ hours } 21 \text{ minutes}$.
- Estimate before you trust the display: an answer ten times too big or too small usually means a mistyped decimal point.
- Calculator papers still have questions a calculator can't do for you, such as algebra, angle reasons and reading charts. Don't let reaching for the calculator slow you down on these.

Graphs, charts, diagrams and constructions

- Draw with a sharp HB pencil and a ruler; write your working and answers in black pen.
- Plot points as small, neat crosses. Join a straight-line graph with a ruler across the whole range asked for. Join a quadratic graph with one smooth curve, not straight segments, with a rounded bottom (or top), not a flat or pointed one.
- When you read from a graph, draw the lines you use (up from the axis to the graph, then across) so the examiner can see your method. Work out what one small square is worth before you read any scale.
- Scatter graphs: draw one straight line of best fit that follows the trend, with points roughly balanced on either side. Describe the correlation as positive, negative or none, and say what it means in the context. Predictions far outside the data are unreliable.
- Pie charts: $\text{angle} = \text{frequency} \div \text{total} \times 360^\circ$. Measure each angle with a protractor from a line you have drawn, and label every sector.
- Constructions and loci: use compasses and leave every arc showing. Rubbing out your construction arcs loses the marks, even if the final line is accurate.
- Bearings are measured clockwise from north. For scale drawings, convert with the scale first, e.g. if 1 cm represents 5 km, then 23 km is 4.6 cm.
- Describing a transformation: give one single transformation with all its details. Rotation: angle, direction and centre. Reflection: the equation of the mirror line. Translation: a column vector. Enlargement: the scale factor and the centre.
- Bar charts need bars of equal width, gaps between bars and labelled axes. A frequency polygon plots each frequency at the midpoint of its class.
- Plans and elevations: the plan is the view from above; the front and side elevations are the views from the front and the side. Count squares on the grid so the lengths are exact.

Checking

- Ask whether the answer is sensible. A door 17 m tall, a probability of 1.3, a negative length or a television costing £0.02 means something has gone wrong.
- Check a solution to an equation by substituting it back into the original equation.
- Reverse a calculation to check it: if you increased £40 by 15% to get £46, check that $46 \div 1.15 = 40$.
- Re-read the last line of each question: the right form (fraction, simplest form, standard form), the right units and the right rounding.
- Check you haven't missed a part, especially where a question carries on over the page.
- Check anything you copied: the numbers taken from the question, and your final answer copied onto the answer line.
- In the last 10 minutes, go first to the questions you marked in the margin, then check the questions worth the most marks.

When you are stuck, extra space and crossing out

- Write down what you do know: the formula you think applies, the diagram with lengths and angles labelled, or the first calculation. A first step often earns the first process or method mark.
- Work backwards from what the question wants, or try the method with easy numbers to see what to do with the real ones.
- In angle questions, fill in any angle you can find on the diagram, even if it is not the one asked for: the next step often appears.
- After two or three minutes with no progress, move on and come back later. A fresh look often shows the way in.
- Keep all your writing inside the page borders, as work written off the edge may not be seen. If you run out of space, ask for extra paper, label it with the question number, and write in the answer space that your answer continues on extra paper.
- To remove work, draw one neat line through it so it can still be read. Don't scribble over a method you are unsure of: crossed-out work that you have not replaced may still be marked.
- Give one method and one answer. If you leave two different methods, the examiner marks the one that leads to your answer on the answer line, and if there is no answer, you may get the marks for the weaker one.

Learning from your mocks

- Sit mocks under real conditions: 90 minutes, silence, no notes, the right equipment, and no calculator on Paper 1.
- Mark strictly with the mark scheme, then look at where each method (M), process (P) and accuracy (A) mark came from. This shows you how much working earns the marks.
- Keep a lost-marks log: question, topic, marks lost and why (didn't know it, slip, misread the question, ran out of time). After two or three papers, patterns appear.
- Redo every question where you dropped marks within a few days, without looking at the answer, and again a week later.
- Note how far you had got at 45 minutes and how long the last few questions took, and adjust your timing plan for the next paper.
- Turn every fact you forgot (a formula, an angle reason, a unit conversion) into a flashcard.

Command words

Word	What it means	How to answer	Example
Write down	The answer can be found with little or no working, usually for 1 mark.	Give the answer straight away on the answer line. No working is needed, but check the form the question asks for.	Here are five numbers: 12, 15, 17, 21, 25. Write down the prime number. Answer: 17
Work out / Find	Do the calculation or reasoning needed to reach the answer; working is expected and earns method marks.	Write each step on its own line and put the final answer on the answer line. On Paper 1, do it all by hand.	Work out $\frac{3}{5}$ of 45. Answer: $45 \div 5 = 9$, then $9 \times 3 = 27$
Calculate	Work out a numerical answer; used mostly where a calculator is allowed.	Show the calculation you are doing, write the full calculator display, then round as the question asks.	Calculate the circumference of a circle with diameter 8.4 cm. Give your answer correct to 1 decimal place. Answer: $\pi \times 8.4 = 26.389\dots = 26.4$ cm
Estimate / Work out an estimate	Find an approximate answer by rounding, or read an approximate value from a graph.	Round each number to 1 significant figure, write the rounded numbers down, then calculate. From a graph, draw the lines you read along.	Work out an estimate for $\frac{48.7 \times 3.1}{0.52}$. Answer: $\frac{50 \times 3}{0.5} = \frac{150}{0.5} = 300$
Simplify / Simplify fully	Write an expression or fraction in its simplest form by collecting like terms or cancelling; 'fully' means nothing more can be done.	Collect like terms, keeping the sign in front of each term with it, and check that nothing else cancels.	Simplify fully $4a + 3b - a + 5b$. Answer: $3a + 8b$
Expand / Expand and simplify	Multiply out the brackets; 'and simplify' means collect like terms afterwards.	Multiply every term inside the bracket by the term outside (for two brackets, every term by every term), watch the signs, then collect like terms.	Expand and simplify $(x + 4)(x - 3)$. Answer: $x^2 - 3x + 4x - 12 = x^2 + x - 12$

Word	What it means	How to answer	Example
Factorise / Factorise fully	Write an expression as a product using brackets; 'fully' means take out the highest common factor.	Take out the HCF of the numbers and the letters. For $x^2 + bx + c$, find two numbers that multiply to c and add to b. Expand your answer to check it.	Factorise fully $12x^2 + 8x$. Answer: $4x(3x + 2)$
Solve	Find the value (or values) of the letter that make an equation or inequality true.	Do the same to both sides, one step per line, and finish with $x = \dots$ (or an inequality such as $x > 3$). Check by substituting back.	Solve $5x - 7 = 2x + 11$. Answer: $3x - 7 = 11$, so $3x = 18$, so $x = 6$
Make ... the subject	Rearrange a formula so that the letter named is on its own on one side.	Undo the operations around that letter in reverse order, doing the same to both sides each time.	Make t the subject of $v = u + 5t$. Answer: $v - u = 5t$, so $t = \frac{v-u}{5}$
Show that	The answer is given; you must show every step that leads to it.	Start from the information in the question, write each step, and end with a line that matches the given answer exactly. The marks are for the working.	Show that $2\frac{1}{3} \times 1\frac{1}{2} = 3\frac{1}{2}$. Answer: $\frac{7}{3} \times \frac{3}{2} = \frac{21}{6} = \frac{7}{2} = 3\frac{1}{2}$
Hence	Use the answer you have just found to answer this part.	Start from your previous answer. A different method may not score, even if it gives the right answer.	(a) Factorise $x^2 + 5x + 6$. (b) Hence solve $x^2 + 5x + 6 = 0$. Answer: (a) $(x + 2)(x + 3)$ (b) $x = -2$ or $x = -3$
Explain / Give a reason / Give reasons	Say why, in words, using a mathematical fact or a calculation. 'Give reasons' in an angle question means a reason for every angle you work out.	Write a short sentence with the key fact or number in it. For angles, use the full angle fact, not names such as 'Z angles'.	ABC is a straight line and angle ABD = 118° . In triangle BCD, BD = CD. Work out angle BDC. Give reasons for your answer. Answer: angle DBC = $180^\circ - 118^\circ = 62^\circ$ (angles on a straight line add up to 180°); angle BCD = 62° (base angles of an isosceles triangle are equal); angle BDC = $180^\circ - 62^\circ - 62^\circ = 56^\circ$ (angles in a triangle add up to 180°)
Interpret	Explain what a value, result or graph means in the context of the question.	Put the number back into words about the situation, with its units.	The cost, £C, of hiring a van for d days is $C = 35d + 20$. What does the 20 represent? Answer: a fixed charge of £20, paid however many days you hire the van
Describe / Describe	Say in words what something is or does,	For a transformation, name one	Triangle A has vertices (1, 1), (3, 1) and (1, 2). Triangle B has vertices (1, -1), (1, -3) and

Word	What it means	How to answer	Example																				
fully	including every detail needed; 'fully' is used for transformations.	transformation and give all its details. For correlation, name the type and link it to the context.	(2, −1). Describe fully the single transformation that maps triangle A onto triangle B. Answer: a rotation of 90° clockwise about the point (0, 0)																				
Compare	Say how two sets of data (or two options) are alike or different, backed by numbers.	For data, compare an average (median or mean) and the range, and say what each comparison means in the context.	Class A: median 12 minutes, range 6 minutes. Class B: median 15 minutes, range 11 minutes. Compare the times. Answer: Class A's median is lower, so on average they were quicker; Class A's range is smaller, so their times were more consistent.																				
Draw / Construct	Make an accurate drawing; 'construct' usually means with a ruler and compasses, and the question says which equipment to use.	Use a sharp pencil, measure carefully and leave all construction arcs showing.	Use ruler and compasses to construct the perpendicular bisector of the line AB. Answer: with the compasses set to more than half of AB, draw arcs from A and from B that cross above and below the line, then join the two crossing points with a ruler																				
Plot	Mark points accurately on a grid, usually from a table of values, and join them if the question asks for a graph.	Plot small crosses exactly. Use a ruler for a straight line and one smooth curve for a quadratic.	Here is a table of values for $y = 2x + 1$. <table><tr><td>x</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>y</td><td>1</td><td>3</td><td>5</td><td>7</td></tr></table> Plot the points and draw the graph. Answer: crosses at (0, 1), (1, 3), (2, 5) and (3, 7), joined by one ruled straight line	x	0	1	2	3	y	1	3	5	7										
x	0	1	2	3																			
y	1	3	5	7																			
Sketch	Show the general shape and key features of a graph or diagram; it does not need to be accurately plotted.	Get the shape right (straight, curved, U-shaped) and label any key points, such as where the graph starts or crosses an axis.	Water is poured at a steady rate into an empty cylindrical glass. Sketch a graph of the depth of water against time. Answer: a straight line from the origin sloping upwards, because the depth rises at a constant rate																				
Complete	Fill in the missing parts of a table, diagram, list or statement.	Use the information given, and check that totals, rows and columns add up.	Complete the table of values for $y = 3x - 1$. <table><tr><td>x</td><td>−1</td><td>0</td><td>1</td><td>2</td></tr><tr><td>y</td><td></td><td>−1</td><td></td><td></td></tr></table> Answer: <table><tr><td>x</td><td>−1</td><td>0</td><td>1</td><td>2</td></tr><tr><td>y</td><td>−4</td><td>−1</td><td>2</td><td>5</td></tr></table>	x	−1	0	1	2	y		−1			x	−1	0	1	2	y	−4	−1	2	5
x	−1	0	1	2																			
y		−1																					
x	−1	0	1	2																			
y	−4	−1	2	5																			
Measure	Use a ruler or protractor to find a length or an angle on an accurate drawing or scale drawing.	Measure in the units asked. For an angle, line up the protractor's centre on the vertex and read from the	A map has a scale of 1 cm to 2 km. You measure the straight line from P to Q on the map as 4.5 cm. Work out the real distance. Answer: $4.5 \times 2 = 9$ km (measure from the																				

Word	What it means	How to answer	Example
		scale that starts at 0° on one arm.	centre of P to the centre of Q, to the nearest millimetre)

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