

GCSE Examiners' Report (Legacy)

Mathematics
GCSE (Legacy)
Summer 2026

© WJEC CBAC Ltd. 2026



Introduction

Our Principal examiners' report provides valuable feedback on the recent assessment series. It has been written by our Principal Examiners after the completion of marking, and details how candidates have performed in each unit.

This report opens with a summary of candidates' performance, including the assessment objectives/skills/topics/themes being tested, and highlights the characteristics of successful performance and where performance could be improved. It then looks in detail at each unit, pinpointing aspects that proved challenging to some candidates and suggesting some reasons as to why that might be.¹

The information found in this report provides valuable insight for practitioners to support their teaching and learning activity. We would also encourage practitioners to share this document – in its entirety or in part – with their learners to help with exam preparation, to understand how to avoid pitfalls and to add to their revision toolbox.

Further support

Document	Description	Link
Professional Learning / CPD	WJEC offers an extensive programme of online and face-to-face Professional Learning events. Access interactive feedback, review example candidate responses, gain practical ideas for the classroom and put questions to our dedicated team by registering for one of our events here.	https://www.wjec.co.uk/home/professional-learning/
Past papers	Access the bank of past papers for this qualification, including the most recent assessments. Please note that we do not make past papers available on the public website until 12 months after the examination.	Portal by WJEC or on the WJEC subject page
Grade boundary information	Grade boundaries are the minimum number of marks needed to achieve each grade. For unitised specifications grade boundaries are expressed on a Uniform Mark Scale (UMS). UMS grade boundaries remain the same every year as the range of UMS mark percentages allocated to a particular grade does not change. UMS grade boundaries are published at overall subject and unit level. For linear specifications, a single grade is awarded for the subject, rather than for each unit that contributes towards the overall grade. Grade boundaries are published on results day.	For unitised specifications click here: Results, Grade Boundaries and PRS (wjec.co.uk)

¹ Please note that where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

Exam Results Analysis	WJEC provides information to examination centres via the WJEC Portal. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.	Portal by WJEC
Classroom Resources	Access our extensive range of FREE classroom resources, including blended learning materials, exam walk-throughs and knowledge organisers to support teaching and learning.	https://resources.wjec.co.uk/
Bank of Professional Learning materials	Access our bank of Professional Learning materials from previous events from our secure website and additional pre-recorded materials available in the public domain.	Portal by WJEC or on the WJEC subject page.

Contents

	Page
Executive summary	5
Unit 1 Foundation Tier	6
Unit 1 Intermediate Tier	8
Unit 1 Higher Tier	10
Unit 2 Foundation Tier	12
Unit 2 Intermediate Tier	14
Unit 2 Higher Tier	16
Supporting you – useful contacts and links	18

Executive Summary

Overall, candidate performance in GCSE Mathematics was broadly comparable with previous series, although there was some variation between individual units. The examination papers across all tiers provided a suitable and fair assessment of candidates' mathematical knowledge, understanding and skills, with the level of demand remaining consistent with previous years.

Candidates generally demonstrated confidence when applying routine mathematical techniques and procedures in familiar contexts. Across the qualification, many candidates performed well on questions involving probability, including straightforward probability calculations and tree diagrams, and showed secure understanding of sequences, standard form and prime factorisation. Standard number skills were generally sound, although some candidates continued to experience difficulty with basic arithmetic and place value, particularly where non-calculator methods were required.

As in previous series, candidates were generally more successful when questions required the application of well-rehearsed methods than when mathematical reasoning was needed in unfamiliar or multi-step contexts. Questions assessing AO3 problem-solving skills often proved more demanding, particularly where candidates were required to select appropriate strategies, combine several mathematical processes or communicate a logical sequence of reasoning.

Geometry remained an area where many candidates experienced difficulty across all tiers. Common weaknesses included applying angle facts, understanding the properties of polygons, using circle theorems, working with bearings and completing geometrical constructions accurately. Candidates also found algebraic manipulation challenging, particularly when rearranging formulae, manipulating algebraic fractions, solving equations involving fractional coefficients and applying algebra within less familiar contexts.

The distinction between calculator and non-calculator skills was evident across the qualification. On Unit 1 papers, a number of candidates struggled with non-calculator arithmetic involving whole numbers, decimals and fractions, with errors in calculation often preventing further progress in otherwise accessible questions. On Unit 2 papers, candidates should be encouraged to make effective use of their calculators where appropriate, particularly for percentage calculations and more demanding numerical work. However, they should also be reminded to show sufficient working to demonstrate their methods and support the award of marks where required.

Teachers should continue to provide opportunities for candidates to develop confidence in applying mathematics to unfamiliar and multi-step problems, with particular emphasis on geometry, algebraic reasoning and problem-solving strategies. Regular practice in selecting efficient methods, making effective use of calculators and interpreting mathematical information accurately will further support candidate performance across all assessment objectives.

Our digital resources website offers blended learning lessons and knowledge organisers, among other materials. Please ensure you are accessing the correct site with legacy resources (link [here](#)) and not the sister site for the new Made-for-Wales qualification.

MATHEMATICS

GCSE (Legacy)

Summer 2026

UNIT 1 FOUNDATION TIER

Overview of the Unit

Overall, the questions were comparable with those on previous examination papers and provided a suitable and fair test for candidates at Foundation tier. Some questions proved more challenging than others, particularly the questions common with the Intermediate tier.

Key areas for improvement include the following:

- Multiplying a 2-digit number by a 1-digit number (Q1a)
- Dividing a 4-digit number by a 1-digit number (Q1b)
- Subtracting numbers given in words (Q1c)
- Drawing a perpendicular line (Q2b)
- Finding the mode and the range (Q4a)
- Writing the coordinates in the first quadrant (Q5b)
- Calculating the perimeter of a rectangle (Q6)
- Matching equivalent percentages, fractions and decimals (Q7)
- Drawing an accurate net from a given base and four sides (Q9)
- Calculating angles at a point involving algebra (Q10)
- Subtracting decimals (Q11a(i))
- Subtracting fractions (Q11a(ii))

The following topic areas were generally well-understood or well-answered:

- Writing the value of the thousand digit (Q1d)
- Rounding a number to the nearest 100 (Q1e)
- Identifying a cylinder and a cone (Q2a)
- Describing the chance of an event occurring (Q3)
- Continuing a descending sequence (Q5a)
- Finding a missing angle in a triangle (Q15)
- Completing a probability table (Q20a)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 1

Many candidates struggled with basic number skills. Errors were often seen in methods for multiplying 89×6 , using the 'bus stop' method for division, and converting numbers written in words into figures before subtracting.

Question 2(b)

Many candidates did not understand the term 'perpendicular' and were therefore unable to draw a perpendicular line through point C.

Question 4

In both parts of (a), some candidates showed a lack of understanding of the difference between the mode, median, mean and range.

In part (a)(ii), many candidates gave the range as $9 - 1$ rather than calculating the answer.

In part **(b)**, some candidates wrote fractions such as $\frac{3}{16}$, $\frac{7}{16}$ and $\frac{6}{16}$ in the frequency column, while others recorded their frequencies in the tally column. In both cases, the maximum mark available was B1.

Question 5(b)

A common error was to write the coordinates in the incorrect order, with many candidates giving (5, 4).

Question 6

Many candidates added only one length and one width, leading to the common incorrect answer of 23 cm. Others used the formula for the area of a rectangle rather than its perimeter.

Question 7

Many candidates correctly matched $\frac{3}{4}$ to 75% and 0.9 to 90%. However, many struggled to convert $\frac{7}{20}$ to 0.35 and instead matched it to 0.3.

Question 8 (OCW)

When candidates lost marks on this question, it was typically due to them incorrectly stating that 1 kg = 100 g, leading to the common incorrect answer of 3 bags.

Question 9

Many candidates were unable to draw a correct net, and others appeared not to have any understanding of what a net is.

Question 10

Many candidates were unable to apply algebra to this question. They did not form an equation before attempting to calculate the value of x .

Question 11

Many candidates struggled with subtraction involving regrouping, subtracting fractions with different denominators, and simplifying algebraic expressions. Common errors included incorrect regrouping in decimal subtraction, subtracting the numerators and denominators of fractions separately, and adding rather than subtracting like terms.

Question 13

Although the diagram was not drawn to scale, many candidates measured one rod with a ruler and used this to estimate the number of rods between A and B. This led to the common incorrect answer of 9 rods.

Question 16

Many candidates added the 12 red discs and 8 blue discs before subtracting their total from 35. This method was not credited. Few candidates recognised the need to calculate $\frac{3}{7}$ of 35.

Question 17

Many candidates struggled to isolate the variable correctly and instead attempted to simplify the expression rather than solve the equation.

Question 18

Many candidates struggled to find the area of the shaded region using a correct method. Some attempted to split the shaded region into two rectangles but incorrectly used dimensions of 12 cm by 2 cm for both rectangles.

MATHEMATICS

GCSE (Legacy)

Summer 2026

UNIT 1 INTERMEDIATE TIER

Overview of the Unit

As expected, some questions proved more challenging than others, especially on the second half of the paper.

Key areas for improvement include the following:

- Using non-calculator methods of adding, subtracting, multiplying, and dividing whole numbers, decimals, fractions, and negative numbers (Q1,3,11,20)
- Applying the facts, formulae and definitions that need to be learned (Q2b,4b,16,19)
- Knowing when to round down and when to round up (Q3)
- Solving problems involving probability and ratios (Q6,12)
- Listing the integer values that satisfy an inequality (Q14b)
- Interpreting set notation to complete Venn diagrams (Q15)
- Using angle and tangent properties of circles (Q19)
- Knowledge and use of the equation of a straight line in the form $y = mx + c$ (Q21)
- Distinguishing between formulae for length, area and volume by considering dimensions (Q22)

The following topic areas were generally well-understood or well-answered:

- Collecting like terms (Q1b)
- Solving linear equations (Q7a)
- Knowledge that total probability = 1 (Qn10).
- Drawing and interpretation of graphs of $y = ax^2 + bx$ (Q13)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 1(a)(ii)

A common incorrect response was $\frac{4}{4}$, where candidates did not realise that a common denominator was needed.

Question 2(b)

Many disappointing responses were seen, with candidates unable to use the $8 \text{ km} \approx 5 \text{ miles}$ relationship.

Question 3

$23 \div 8$ was commonly seen, with candidates not converting to a common metric unit. Errors arose from dividing $230 \div 8$ or $23 \div 0.8$, and many rounded their answer up rather than down. This was an OCW question, but final answers were often poorly labelled or had units missing.

Question 4

Most candidates could draw either the 70° angle or the 6 cm line, but many struggled to complete both accurately to form the required triangle.

Question 5

Although many found angle x , many ignored the word ‘hence’ and did not recognise that x was needed to calculate the bearing of point C from point B .
A frequent error was 135° , where candidates measured the diagram.

Question 6

Candidates often stated the number of red discs rather than answering how many were added. Responses such as 15 from $35 - (12 + 8)$ were not credited.

Question 8

Many found the area of the large or small square but did not express the shaded region as a fraction of the larger square.

Some expressed it as a fraction of the smaller square, while others ignored the shaded region entirely and gave $\frac{100}{144}$ as a final answer.

Question 10(a)

Percentages caused difficulty for some candidates, with some adding the probabilities in the table and subtracting from 160 instead of 100. A number of candidates correctly identified 25% but then calculated the number of cards labelled B.

Question 11

Many used a correct method of prime factorisation but stopped at 117, assuming it was prime, or made division errors.

Question 12

This ratio problem was often misinterpreted, with candidates dividing £10.50 by 4 or 5. Those who drew a diagram generally succeeded.

Question 14(b)

The term ‘integer’ was not well understood, leading to answers including decimals. Some only gave one value that satisfied the inequality.

Question 15

Set notation proved challenging, with most candidates only placing 18 and 19 correctly. 13 and 16 were usually omitted.

Question 16

Many used $60 \div 2.5$, showing they found the volume but did not apply the correct density, mass and volume relationship.

Question 18

Many candidates could convert standard form to ordinary numbers in parts (b) and (c), but made arithmetic errors when adding or dividing.
Few used index laws efficiently.

Questions 19, 20 and 21

These questions, although fairly standard, proved very challenging for many pupils.
In question 19, candidates were unfamiliar with circle theorems involving tangents.

In question 20, many struggled with an algebraic method to find a and b . Those who eliminated a variable often found calculations such as $115 \div 23$ difficult.

Question 21 proved extremely challenging, with candidates unable to find gradients or apply the properties of a parallelogram and parallel lines.

MATHEMATICS
GCSE (Legacy)
Summer 2026
UNIT 1 HIGHER TIER

Overview of the Unit

The performances on individual questions reflected the increasing level of demand in moving through the paper. Only a very few of the later questions occasionally lacked an attempt.

Key areas for improvement include the following:

- Understanding and using set notation to complete a Venn diagram (Q5)
- Using coordinates to construct the equations of parallel lines (Q11)
- Distinguishing between formulae by using dimensional analysis (Q12)
- Working with decimals without a calculator e.g. $\sqrt{0.49}$ and $1.4 \div 0.7$ (Q13)
- Formally proving the congruence of two triangles (Q14)
- Changing the subject of a formula, where factorising is required (Q15)
- Understanding, using and quoting the specified circle theorems (Q18)
- Manipulating surds (Q19b)
- Identifying irrational numbers (Q19c)
- Manipulating an equation involving algebraic fractions (Q20)
- Identifying the equation of a graph after a horizontal translation (Q21)
- Manipulating simple fractions (Q19b,22)

The following topic areas were generally well-understood or well-answered:

- Expressing a number as a product of its prime factors (Q1)
- Sketching the graph of a quadratic function (Q3)
- Finding the n th term of a decreasing linear sequence (Q4a)
- Identifying integers which satisfy a linear inequality (Q4b)
- Using volume and density to calculate mass (Q6)
- Using a lower bound within a calculation (Q7)
- Understanding and using standard form (Q8)
- Solving simultaneous equations (Q10)
- Expressing a recurring decimal as a fraction (Q17a)
- Calculating probabilities of compound events (Q22)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 2

Having recognised that 3 shares of the ratio were worth £10.50, many proceeded to find the correct total. However, others failed to make progress because they divided £10.50 either by 4 or by 5. For the OCW aspect, many gave well-structured solutions, using correct notation and mathematical form, but some did not clearly present their final answer.

Question 5

Few demonstrated full understanding of the set notation involved here. The values needed to be uniquely placed within the regions of the Venn diagram. Placing a given value in more than one region was penalised, as was including a value which was not in the universal set.

Question 9

Some candidates subtracted 70 from 180, treating $ABCO$ as a cyclic quadrilateral.

Question 11

In initially attempting to find the gradient of the line between two points, some candidates incorrectly calculated $2 \div 4$ to be 2. Despite the lines clearly being parallel, it was common to declare two different gradients. Some omitted y as a subject in their final answers.

Question 12

All four expressions were rarely identified, with the final 'length' causing the most difficulty.

Question 13

Having formed an equation, many struggled with the arithmetic e.g. giving $\sqrt{0.49}$ to be 0.07.

Question 14

Excellent solutions were occasionally seen, but the overall response was disappointing. Few understood the requirements of the proof, often giving irrelevant or verbose descriptions. Inadequate or ambiguous notation was common in attempting to define the angles and lengths. Very few appropriately described their equated pairs of angles to be (vertically) opposite or alternate. Very few identified the appropriate case of congruency.

Question 15

Many started well by clearing the fraction, but expanding the brackets was then often inaccurate. Of those who collected terms in h to one side of their equation, many candidates did not subsequently recognise the need to factorise.

Question 16

Some were penalised for using a scale factor of $36 \div 4 = 9$, without finding a square root.

Question 18

This second question on circle theorems was inevitably more challenging than question 9. Of those making progress, many were able to apply the alternate segment theorem, though this was sometimes evidenced only on the diagram. Writing reasons caused much difficulty, with many describing angles and lines rather than using the necessary terminology.

Question 19(b) and 19(c)

In part (b), many candidates did not convert the numbers within the square root into a single fraction, often incorrectly 'splitting' the square root into a difference of two surds.

In part (c), some offered a long recurring decimal or gave 12.5 as their irrational number.

Question 20

This was a testing question on algebra. Many were unable to progress beyond an attempt to clear the fractions, and some did not realise that they subsequently needed to equate the numerator of their single algebraic fraction to zero. Of those reaching the quadratic equation, many correctly factorised and solved it. Using the quadratic formula tended to be less successful due to the need to evaluate the square root of 361 without a calculator.

Question 21

This proved difficult, with the answer option in the centre being a common incorrect choice.

Question 22

Some candidates continue to attempt to add probabilities when they should be multiplying. Calculating a denominator of 336 was sometimes done inaccurately.

MATHEMATICS

GCSE (Legacy)

Summer 2026

UNIT 2 FOUNDATION TIER

Overview of the Unit

Overall, the questions were comparable with those on previous examination papers and provided a suitable and fair test for candidates at Foundation tier. Some questions proved more challenging than others, particularly the common questions.

Key areas for improvement include the following:

- Writing a number in figures (Q1b)
- Naming a hexagon, radius and quadrilateral from descriptions (Q2)
- Identifying multiples, factors and square numbers from a list of numbers (Q3)
- Choosing the most appropriate metric measure (Q5)
- Interpreting a probability scale (Q6b)
- Recognising number patterns (Q7)
- Finding the remainder (Q8c)
- Measuring and naming a reflex angle (Q9)
- Writing expressions in algebraic terms (Q10b)
- Finding a fraction and percentage of an amount (Q11)
- Finding missing angles in a quadrilateral involving algebra (Q12a)
- Applying angle facts involving vertically opposite angles, angles on a straight line and angles in a triangle (Q12b)

The following topic areas were generally well-understood or well-answered:

- Writing a number in words (Q1a)
- Identifying odd numbers and rounding to the nearest 10 (Q1c)
- Explaining the median and mode (Q4)
- Probability and understanding an even chance (Q6a)
- Squaring a number (Q8a)
- Using inverse operations to find an unknown number (Q10c)
- Scale problems involving missing values and totals (Q16)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 1(b)

Several candidates struggled with place value when writing a number in figures.

Question 2

This question highlighted that some candidates could not recall the properties of two-dimensional shapes. In part (a), many candidates gave 'pentagon' as their answer, and some gave 'hectagon'.

Question 3

Many candidates correctly identified the multiple of 13. However, many struggled to correctly identify the factor and square number.

Question 5(a)

Many candidates selected miles as the appropriate measure for distance, showing a lack of understanding that the required measurement was a metric unit.

Question 6(b)

Many candidates correctly marked A on the probability scale; however many marked $\frac{6}{8}$ for B.

Question 7

Many candidates struggled with this question. Although some correctly identified the pattern and found that the answer was Pattern 25, others assumed that the sequence increased by adding 5 each time.

Question 8(c)

A common incorrect answer of 0.04 was frequently seen, which comes from using the decimal part of the fully calculated answer of $876 \div 25 = 35.04$.

Question 9

In part (a), many candidates struggled to calculate the reflex angle. They often measured the acute angle correctly but did not subtract it from 360° .

In part (b), many candidates demonstrated weak understanding of angle terminology, incorrectly identifying the angle as acute or obtuse rather than using the correct term.

Question 10(b)

In both parts, many candidates were unable to form an expression. Some created an equation to try to calculate the value of y . In part (b)(i), some wrote the expression as $6 < y$.

Question 11

Some candidates correctly calculated $\frac{3}{7}$ of 200. However, some were unable to use a correct method to calculate a percentage of an amount using a calculator. Of those who correctly calculated both the fraction and percentage, some did not add the two answers to find the required total.

Question 12

In part (a), many candidates were unable to apply their knowledge of algebra. They did not form an equation before attempting to calculate the value of y . Some attempted to add 136, 110 and $2y$, giving 248, before subtracting this from 360.

In part (b), although most candidates could find angle a , many struggled to calculate angle b .

Question 13

In part (a), although some successfully embedded the correct answer for x , many found it difficult to isolate the variable. In part (b), some candidates correctly substituted the given values into the formula but were unable to rearrange it to find the value of b .

Question 14

Some candidates were able to calculate the length of AC. However, many were unable to apply the formula for the area of a trapezium.

Question 15

In part (a), many candidates described the probability rather than writing a numerical value. In part (b), candidates struggled to use a correct method to find the number of people who selected pasta as their favourite food.

Question 17

Some candidates could find the value of w , but many were unable to apply a correct method to calculate the mean from a frequency table. A common approach was to divide 40 by 5.

MATHEMATICS

GCSE (Legacy)

Summer 2026

UNIT 2 INTERMEDIATE TIER

Overview of the Unit

Overall, the questions were comparable to those asked in previous series, and the paper represented a suitable and fair test for candidates at the Intermediate level. Some questions proved more challenging than others, particularly in the second half of the paper.

As noted in previous series, candidates should be encouraged to use a calculator as much as possible in Unit 2, but they must also remember to show their working where appropriate.

Key areas for improvement include the following:

- Identifying prime numbers from a list of numbers (Q1d)
- Rounding numbers to a given number of decimal places or significant figures (Q4)
- Finding the mean for a discrete ungrouped frequency distribution (Q9)
- Solving problems involving regular polygons (Q11b)
- Enlarging a shape with a centre of enlargement (Q12)
- Subtracting algebraic expressions (Q13)
- Finding the area of a quarter of a circle (Q15)
- Changing the subject of a formula (Q18)
- Finding the original quantity given the result of a proportional change (Q19)
- Solving a fractional equation (Q20)

The following topic areas were generally well-understood or well-answered:

- Identifying multiples, factors and cube numbers (Q1abc)
- Finding a fraction and a percentage of a quantity (Q2)
- Substituting numbers into a formula expressed in symbols (Q5b)
- Solving linear equations (Q8)
- Using a full trial and improvement method (Q14)
- Completing the branches on a tree diagram and finding a probability (Q17)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 1(d)

217 was a common incorrect response, showing that many candidates did not recognise the prime number in the list.

Question 2

This question was generally well answered, though premature approximation often led to an answer of 261. Candidates should be reminded to use their calculators for percentage calculations rather than relying on non-calculator methods.

Question 3(a)

Many realised that the interior angles in the quadrilateral needed to sum to 360° , but errors occurred when adding 2 (from $2y$) to 246, or by dividing 114 by 2 instead of 3.

Question 4

This question was poorly answered, with many candidates not using place value to check their rounding.

Question 6

Brackets were frequently omitted when calculating the area of the trapezium, leading to incorrect methods. As an OCW question, AC was often not labelled, incorrect mathematical form was evident, and the final answer lacked units.

Question 9

Many could find the value of w , but struggled to use a correct method to calculate the mean. Common errors included dividing by 5 instead of 40, using 8.5 as w , or finding a midpoint from an imaginary group.

Question 11(b)

This question was very poorly answered, with candidates not knowing the relationship between interior angles, exterior angles and the number of sides of a regular polygon.

Question 12

Many gained one mark for the correct enlargement but placed it in the wrong position on the grid.

Question 13

Many recognised that $x + 1$ needed to be subtracted from $6x - 8$, but poor notation led to incorrect answers such as $5x - 7$ from $6x - 8 - x + 1$.

Question 15

Calculating the area of a circle continues to be problematic, and, therefore, many struggled with finding the area of a quarter circle.

Question 16

In part (a), many correctly identified ED and FD as 6 and 6.4 respectively. It was pleasing that many recognised Pythagoras' theorem was needed to find EF .
In part (b), candidates should be reminded that it is good practice to show the first step, e.g. $\tan 32^\circ = 5 / PQ$, which gained one method mark.

Question 18

Some candidates gained a mark for expanding the bracket correctly, but few progressed further.

Question 19

Finding an original quantity after a proportional change remains challenging. Incorrect methods such as $0.83 \times 65.52 = 54.3816$ or $1.17 \times 65.52 = 76.6584$ were frequently seen.

Question 20

Many failed to manipulate the algebraic fractions correctly and did not realise that a common denominator needed to be used.

MATHEMATICS
GCSE (Legacy)
Summer 2026
UNIT 2 HIGHER TIER

Overview of the Unit

Overall, the paper was a suitable and fair test for candidates at Higher tier and consisted mainly of standard topics assessed within these units. The questions that proved most challenging involved AO3 problem solving and multi-step algebraic manipulation. Candidates performed strongly on the first half of the paper, which contained questions common to the Intermediate tier. However, some Higher tier questions were also answered well.

Key areas for improvement include the following:

- Determining the number of sides of a polygon given the interior angle (Q1)
- Problem solving involving lengths of rods and algebraic expressions (Q3)
- Solving equations with fractional coefficients (Q10)
- Factorising quadratic expressions involving the difference of two squares (Q12)
- Solving a trigonometric equation involving $\tan$ (Q17)
- Describing transformations of graphs using function notation (Q18)
- Solving quadratic equations using the quadratic formula (Q19)
- Applying the cosine rule, sine rule and $\frac{1}{2}ab \sin C$ in a problem-solving question (Q20)

The following topic areas were generally well-understood or well-answered:

- Using trial and improvement to solve equations (Q4)
- Finding the area of a shaded region involving squares and quarter circles (Q5)
- Applying Pythagoras' theorem and right-angled trigonometry (Q6)
- Completing and interpreting probability tree diagrams (Q7)
- Changing the subject of a formula (Q8)
- Working with reverse percentages (Q9)
- Finding the area and arc length of sectors (Q13)
- Finding the internal diagonal of a cube (Q14)
- Using the cosine rule directly from the formula page to calculate the length of a missing side (first part of Q20)

Comments on individual questions/sections

When a question or part-question is not listed, there are no areas to highlight.

Question 1

Some candidates did not understand the relationship between the interior and exterior angles of a polygon and the number of sides. A common error was calculating the exterior angle correctly but then dividing 180° by this value rather than 360° .

Question 2

Most candidates knew how to enlarge by a scale factor of $\frac{1}{2}$. However, many candidates did not correctly position the image using the given centre of enlargement.

Question 3

A common incorrect answer was $5x - 7$, resulting from incorrectly simplifying the expression $6x - 8 - (x + 1)$. This was often due to expanding $-(x + 1)$ incorrectly as $-x + 1$.

Question 10

Many candidates recognised the need to find a common denominator for the two fractions on the left-hand side of the equation before adding them. However, rearranging the resulting equation proved challenging, with some candidates unable to deal with different denominators remaining on both sides.

Question 12

Many candidates gained the first mark for expanding and simplifying the expression to $4x^2 - 25$. However, some did not recognise this as the difference of two squares.

Question 15

Many candidates did not recognise that there are three permutations when choosing 3, 5 and 5.

Question 17

Many candidates were unable to translate the negative angle into values within the required range. However, some candidates recognised that there is a difference of 180° between the two solutions when solving a *tan* equation.

Question 18

Many candidates struggled to write function notation correctly.

Question 19

Most candidates recognised the need to expand both pairs of brackets. However, some did not rearrange the equation to equal zero, and of those who did, some made errors when collecting like terms.

Question 20

Many candidates correctly calculated the length of BC using the cosine rule. The next step proved more challenging, with some candidates unable to rearrange the sine rule correctly to find the angle. However, most candidates recognised the need to use $\frac{1}{2}ab \sin C$ to calculate the area of the triangle.

Supporting you

Useful contacts and links

Our friendly subject team is on hand to support you between 8.30am and 5.00pm, Monday to Friday.

Tel: 02922 404251

Email: mathematics@wjec.co.uk

Qualification webpage: <https://www.wjec.co.uk/qualifications/mathematics-gcse/>

See other useful contacts here: [Useful Contacts | WJEC](#)

CPD Training / Professional Learning

Access our popular, free online CPD/PL courses to receive exam feedback and put questions to our subject team, and attend one of our face-to-face events, focused on enhancing teaching and learning, providing practical classroom ideas and developing understanding of marking and assessment.

Please find details for all our courses here: <https://www.wjec.co.uk/home/professional-learning/>

WJEC Qualifications

As Wales' largest awarding body, WJEC supports its education community by providing trusted bilingual qualifications, specialist support, and reliable assessment to schools and colleges across the country. This allows our learners to reach their full potential.

With more than 70 years' experience, we are also amongst the leading providers in both England and Northern Ireland.



WJEC
245 Western Avenue
Cardiff CF5 2YX
Tel No 029 2026 5000
Fax 029 2057 5994
E-mail: exams@wjec.co.uk
website: www.wjec.co.uk