

GCSE Examiners' Report

Mathematics – Numeracy
GCSE
November 2025

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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

The examination papers in GCSE Mathematics-Numeracy were of a similar standard to previous November series, and overall candidate performance was slightly stronger than in November 2024. As always, some questions were more challenging than in previous years, while others were less so.

Again this series, a number of marks were lost through basic calculation errors. These included slips with place value, inaccurate addition or subtraction, and misinterpretation of decimal values. Across all tiers many candidates selected appropriate methods but did not always carry them through accurately. Problems that have appeared in previous series also resurfaced, particularly interpreting information in frequency tables, calculating means, understanding tax and percentage change, and working with area, volume and geometric facts.

There were several positive trends. Candidates generally engaged well with money and cost-based questions, real life graphs, and proportional reasoning. Many also communicated their work clearly, especially on the OCW questions at higher tier. At the upper tiers there was evidence of secure understanding in similarity, trigonometry and Pythagoras' theorem, and at foundation tier candidates often handled routine percentage calculations, simple time calculations and organising data into tables with confidence.

At foundation tier in Unit 1, candidates showed good understanding when calculating simple percentages and working with time. However, many struggled with finding a mean from a frequency table, using scale diagrams, and interpreting basic income tax questions. Misunderstandings between statistical terms such as mode, median and range were common. In Unit 2, candidates were generally confident with cost and pattern-based questions and with drawing bar charts, but interpreting a distance chart, converting between units, and calculating areas continued to be challenging.

At intermediate tier, candidates showed strength in interpreting real life graphs, calculating simple percentages and working with electricity use and costs. In contrast, misunderstanding of tax bands, difficulties interpreting nets in volume questions, and insecure knowledge of angle facts limited progress. In Unit 2, many candidates were able to estimate a mean and apply mathematical similarity, but questions requiring comparison and interpretation rather than calculation were often poorly understood. Systematic sampling also remained a weakness.

At higher tier, candidates performed well on cumulative frequency, histograms, bounds, similarity and trigonometry, and many produced well organised and clearly labelled working on extended questions. However, bearings, interpreting nets, the application of Pythagoras' theorem in 3-D, and methods such as stratified and systematic sampling continued to present challenges. Confusion between nominal annual interest rates, monthly rates and the AER was also common.

Practitioners may wish to continue focusing on developing fluency in number, particularly where the arithmetic underpins the key mathematical idea being tested. Strengthening understanding of tax, sampling methods, area and volume, and the interpretation of tables and charts will support learners across all tiers.

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 - NUMERACY

GCSE

November 2025

UNIT 1 FOUNDATION TIER

Overview of the Unit

Many candidates attempted most questions. Candidates were more successful with the earlier questions than with the later questions in the paper, as is expected. Basic mathematical skills often hindered candidates.

Key areas for improvement include the following:

- Using a scale diagram to estimate measurements (Q3c)
- Finding a fraction of a quantity (Q5a)
- Finding the mean from a frequency table (Q6)
- Understanding tax (Q7)

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

- Working with basic time (Q3b)
- Tabulating given information (Q3d)
- Finding a basic percentage of an amount (Q5b)

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 confuse the range with the mode in part **(a)**. Several candidates thought that 14 was the mode in part **(b)** as it was the highest value and some candidates calculated the mean rather than the median in part **(c)**. There were a few candidates that did not know how to calculate the median when given an even number of values.

Question 2(d)(ii)

Most candidates knew that they needed to multiply 71.50 by 10000 but unfortunately, they did not know where the decimal point should be.

Question 3(a)

Most candidates could find the total cost of the theatre tickets as £55 but several did not know how to find the separate costs for a child and adult. Some candidates divided by 2 first and then subtracted 15, rather than dealing with the 15 first and then dividing by 2.

The question enabled candidates to use labels and set out their workings clearly and very few misused the equal sign.

Question 3(c)

This question required candidates to do more than usual with this type of question. Some candidates only multiplied by the scale and did not then find the length of 4 carriages. Many candidates did gain the SC mark for 1200. In **(ii)** those candidates who only stated the answer as 1200 (cm) in **(i)** could not gain the marks in **(ii)**. Those that did gain full marks in **(i)** usually achieved marks in **(ii)**.

Question 4

Although some candidates gained all the marks in parts **(a)** and **(b)**, for those that did not gain full marks many did not show the method of adding on time in **(a)** and subtracting time in **(b)**.

Question 5

In **(a)**, many candidates could find a quarter of 2400 but struggled with finding $\frac{5}{8}$ of 2400. A few candidates tried to calculate $\frac{5}{8}$ of $(2400 - 600)$.

In part **(b)**, many candidates were able to find 5% of £45 but could not accurately subtract £2.25 from £45.

Question 6

In part **(a)**, some candidates knew to sum the product of each number of pens with the number of students; however, many just added 1, 2, 3, 4, and 5.

In part **(b)**, most candidates divided by 5 rather than 30.

Question 7

Very few candidates gained marks in this question. Most said the amount of tax paid would be €3000 even though the question said it was €2250. Most candidates did not understand that they needed to subtract 5000 from 20000 to begin with.

Question 8

Many candidates were able to pick up marks in this question, especially for showing $160 \times £1.50$. Some candidates were able to find 70% of 160, although quite a few attempted to find 70% of £240.

Question 9

In part **(d)**, some candidates could identify the largest computer screen with 70 (cm) and 49 (cm) stated, although some used 50 (cm) instead of 49. Very few knew that they needed to multiply these values to find the area.

In part **(e)**, some identified the length as 40 (cm) but most candidates struggled with converting this into inches.

MATHEMATICS NUMERACY

GCSE

November 2025

UNIT 1 INTERMEDIATE TIER

Overview of the Unit

Most candidates attempted all questions. Candidates were more successful with many of the earlier questions than with the later questions in the paper, as is expected.

Key areas for improvement include the following:

- Understanding the method to calculate a mean from a frequency table (Q3b)
- Understanding and interpreting income tax bands (Q4)
- Understanding 2-D representations to calculate volume (Q8)
- Applying geometrical facts to calculate angles in an isosceles triangle (Q9a)

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

- Reading real life graphs (Q1,6)
- Calculating a simple percentage of an amount (Q2b,5)
- Interpreting and solving problems involving electricity use and costs (Q7)
- Finding the upper bound of a mass (Q10c)

Comments on individual questions/sections

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

Question 1

Generally, candidates were able to interpret the graph to find the appropriate low and high tides. Where errors were made, it was in the addition or subtraction of time.

Question 3

Many candidates were able to use a method to calculate the total number of pens from a frequency table. However, a common error in calculating the mean was to divided by 5 (the number of columns of data) or 15 (= $1+2+3+4+5$).

Question 4

Many candidates lacked understanding of the amount to use when calculating a percentage. The idea of tax bands is not well understood.

Question 5

Many candidates understood how they needed to calculate the cost of fresh water and waste water, with 70% of 160 often calculated accurately. There were sometimes place value errors, but multiplications were otherwise often worked out using knowledge of tables.

Question 8

Many candidates did not interpret the net correctly. Incorrect heights were often seen, including 18 cm, 4 cm and 8 cm, instead of 5 cm. Although the question asked for volumes, a number of candidates calculated the surface area. Working in 3-D from a net is an area for improvement.

Question 9(a)

Many candidates inappropriately measured a bearing from the diagram, which was not drawn to scale. Some candidates did not attempt to answer this question. A number of candidates calculated $360 - 90 - 200 = 70$, but incorrectly placed 70° in the triangle at Meurig's house, not considering that this diagram was not to scale and that it was an isosceles triangle. This question was not well answered.

MATHEMATICS - NUMERACY

GCSE

November 2025

UNIT 1 HIGHER TIER

Overview of the Unit

Key areas for improvement include the following:

- Working with nets of shapes (Q2)
- Calculating bearings (Q3a)
- Non-calculator strategies to calculate a stratified sample (Q7a)
- Fully simplifying a surd (Q7c)
- Forming and solving an equation from speed, distance, time information (Q9a)
- Applying Pythagoras's theorem in 3-D applications (Q10b)

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

- Volume of a triangular prism (Q2)
- Analysing a cumulative frequency diagram (Q4a)
- Working with bounds (Q4c)
- Drawing and interpreting a histogram (Q8a)

Comments on individual questions/sections

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

Question 1

Part **(b)** was not as well answered as part **(a)**, although many correct answers were seen. Those who did not gain full marks generally gained marks for either finding the weekly cost for the new heater or the hourly cost of the current heater.

Question 2

A minority of candidates successfully calculated the missing dimension of the cuboid. Most were able to calculate the volume of the prism correctly though. This was the OCW question on this unit, and generally work was easy to follow with appropriate labelling, units and workings shown.

Question 3

Part **(a)** was not well answered with many candidates failing to correctly calculate each of the angles inside the triangle. Most correctly found the 70° angle in the top right corner however. A number of candidates measured the bearing, even though the diagram was not drawn to scale.

More success was seen in part **(b)**, although a number of candidates either used an incorrect formula, or failed to convert the time taken into hours correctly.

Question 4

In part **(b)**, many correct answers were seen, although some divided by 12 rather than 7. Some arithmetical errors were also seen, mainly with the answer to the division of 4914 by 7. In part **(d)**, assessing reverse percentage, several candidates worked out 80% of £3 which exemplifies the usual incorrect method seen.

Question 5

Many correct answers were seen. The most common incorrect answers were '80% increase' and 180%.

Question 6

In part (b), some candidates multiplied with incorrect values, but many fully correct answers were seen. A significant number did not attempt to give their answer in standard form.

In part (c), many correct answers were seen. Some did not give a correct answer to their division while some did not use approximated values and generally gained no marks.

Question 7

In part (a), most candidates knew the correct method required to find the numbers for the sample, but many of them struggled to accurately perform the calculations. The numbers 20 and 140 in the question meant that if a cancelling method was used, each number of playground equipment ordered simply needed to be divided by 7 to give decimals or fractions that could be compared.

In part (b) many candidates used the correct method to find the arc lengths, although arithmetic errors were seen. Some gave their final answer by incorrectly adding for example 280π and 1380 to give 1660π .

In part (c), few fully correct responses were seen. Some did not arrive at the radius of $\sqrt{1200}$, while many were unable to fully simplify the surd.

Question 8

Many fully correct answers were seen in part (a). Some made arithmetical errors evaluating 25×0.6 .

In part (b), some candidates wanted to make the percentage calculation easier by using $20/60$ rather than $21/60$, while some did not know what was required.

Question 9

Very few correct answers were seen in part (a). Some formed a correct equation but were unable to solve it. In part (b), several candidates showed a correct method to find the area of the trapeziums. Some thought their estimated area was the final answer required, with few seeing the need to divide by 60.

Question 10

In part (a), most candidates approached the question correctly by splitting the shape up into 1 or 2 cuboids and a trapezoidal prism. It was finding the capacity of this prism that caused the most problems. Quite a number of candidates arrived at the correct total capacity of the swimming pool but then didn't know how to find the distance required.

Part (b) was not well answered. Several candidates used Pythagoras correctly in 1 plane but then did not realise the need to apply it again in a second plane.

MATHEMATICS - NUMERACY

GCSE

November 2025

UNIT 2 FOUNDATION TIER

Overview of the Unit

Many candidates attempted most questions. Candidates were more successful with the earlier questions than with the later questions in the paper, as is expected. Basic mathematical skills often hindered candidates.

Key areas for improvement include the following:

- Understanding how to interpret a distance chart (Q1a)
- Knowing the parts of a circle (Q1b)
- Using angles in a pie chart to find an amount represented by the sector (Q7b)
- Area of shapes (Q9)

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

- Calculating costs (Q2a)
- Patterns and sequences (Q3b)
- Drawing bar charts (Q4a)

Comments on individual questions/sections

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

Question 1

Part **(a)** was not well answered. It was not the mathematics involved in the question as many candidates knew that they had to sum different distances. The issue was understanding a distance chart. Many candidates just added all 6 distances. Some candidates thought that the last stage was a return of the first 3 stages. This meant that common incorrect answers of 273.1 km or $103.6 \times 2 = 207.2$ km were often seen.

In part **(b)**, it was surprising to see that quite a few candidates did not know where the diameter is on a circle.

Question 2(a) (ii)

Many candidates were able to find 20% of their costs in **(i)** but some struggled to round their 20% to the nearest penny.

Question 2 (b)

Most candidates knew that they needed to multiply by 4; however, many didn't go further than that. The main issue was converting between km and m. Some then multiplied by 50m instead of dividing.

Question 3(a)

Several candidates did not fully read the question and only counted the area within the shape and not the area outside (wasted area). Some candidates did not then multiply their answer by 25 to find the total area wasted by the 25 pupils.

Question 4(a)

Most candidates knew how to draw a bar chart, and many candidates gained 3 out of 4 marks. Marks were lost with some candidates not labelling the vertical axis, and some not using a suitable uniform scale.

Question 4(b)

Many candidates did not work with the mass of meat for each type of cat. The most common incorrect answer was 615 kg from adding the masses of meat for each type of cat and multiplying by 30. This type of question did allow candidates to gain OCW marks for labelling their work, showing workings and methods, and using units in their answer.

Question 5

In part (c), many candidates gave the incorrect answer of 3.9 km. Some also rounded their distance, giving an incorrect answer of either 4 km or 8 km.

In parts (d) and (e), some candidates did not understand the scale used for time and therefore their time was not accurate enough.

Question 6

Most candidates were able to gain 1 mark for stating the length as 128cm or for finding the height of the water as $\frac{3}{4}$ of 48 = 36cm. Very few knew how to calculate the volume of a cuboid. Many candidates attempted to add the measurements, rather than multiply.

Question 7

In part (a), many candidates were able to find 40% of 230 but then did not subtract this amount from 230.

Part (b) was not well answered. The most common error was thinking that the pie chart was equally split into 3 parts. For those that measured the angle, they did not see the connection between 360° and 720 people.

Question 8

Part (a) was fairly well answered for a question this late in the paper.

In part (b), several candidates were able to give a correct reason why Megshop was better value than Stacey Store but could not then compare correctly with Corner In. Those candidates that worked with finding the costs of 1 gram of chocolate in each shop usually gained all 3 marks.

Question 9

Only a few candidates were able to find the area of the parallelogram in (a). Many candidates just attempted to work with perimeter in both parts.

Part (b) was not answered well at all. Very few candidates showed evidence of being able to work with the area of a trapezium and those that attempted to split the shape into a rectangle and a triangle often forgot to divide by 2 for the area of the triangular part.

Question 10(c)

Some candidates could ask the required question linked to age; however, the option boxes did not consider 'under 30' and '30 or more'.

Question 11

Quite a few candidates were able to gain 1 mark in this question. The main error was not considering the charge for the extra 1.8 miles as $2 \times 65p$.

MATHEMATICS NUMERACY

GCSE

November 2025

UNIT 2 INTERMEDIATE TIER

Overview of the Unit

Most candidates attempted all questions. Candidates were more successful with many of the earlier questions than with the later questions in the paper, as is expected.

Key areas for improvement include the following:

- Interpreting comparison calculations to give a suitable conclusion (Q4b,7b)
- Understanding and using knowledge of area and volume to solve problems (Q5,12)
- Understanding of systematic sampling (Q13c)

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

- Interpreting and solving a same value problem (Q4a)
- Calculating an estimate of the mean (Q8b)
- Interpreting and solving an exchange of money problem (Q10)
- Understanding mathematical similarity (Q11)

Comments on individual questions/sections

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

Question 4(b) and 7(b)

In question **4(b)**, a number of candidates justified a conclusion by writing a statement about 'Megshop', but did not fully answer the question by considering all 3 shops. Many candidates calculated grams per penny or pence per gram, sometimes with place value errors such as from division by 7, 5 and 65 rather than 6.5. A number of candidates reached the incorrect conclusion as they were unsure of the unit of their comparison, seemingly unsure if it was the greatest or the least result they should be selecting.

In question **7(b)**, many candidates did not have a suitable method of comparison, only considering differences in house prices. Of the candidates working with a fraction, decimal or percentage, many candidates reached the incorrect conclusion as they did not engage with the meaning of their calculation, as to whether it was the least or greatest result that indicated the greatest increase for the period of time. Generally, candidates selected the greatest decimal or percentage irrespective of their calculation.

Question 5 and 12

Generally, candidates did not calculate an area for the patio in **5(a)** or garden in **5(b)**, seemingly not having a strategy to solve the problem nor having knowledge of calculating the area of a trapezium.

In question **12**, many candidates did have some knowledge in order to apply at least one of the appropriate operations required to solve the problem. However, the volume of the cylinder was initially often incorrect, often without the inclusion of pi in their calculation.

Question 8(b)

Many candidates did attempt to work with the mid points of the intervals, which were often correct, although 2.5 was a common error for 3. Compared with previous series a slightly greater proportion of candidates divided by 40 (the total number of journeys), rather than incorrectly using either 5 (the number of rows in the table), or the sum of their mid points.

Question 11

Many candidates applied knowledge of mathematical similarity. Although a number of candidates prematurely approximated and did not give the correct answer. Fewer candidates than usual incorrectly worked with differences in lengths. There is some improvement from previous examination series.

Question 13(c)

Many candidates did select the start of a selection from a list using a systematic sample method would be a randomly chosen name. Few candidates had a method to work out which of the employees should subsequently be selected. This is an area for improvement.

MATHEMATICS - NUMERACY

GCSE

November 2025

UNIT 2 HIGHER TIER

Overview of the Unit

Key areas for improvement include the following:

- How to calculate a percentage increase (Q1)
- The method of systematic sampling (Q7b)
- How to use the nominal annual interest rate to find the rate that is actually applied to a savings account each month (Q10a)
- The difference between the nominal annual interest rate and the AER (Q10c)

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

- Using Pythagoras's theorem (Q3)
- Similar shapes (Q5, 12c)
- Trigonometry (Q7a, 11)
- Box-and-whisker diagrams (Q8)
- Upper and lower bounds (Q9a)

Comments on individual questions/sections

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

Question 1

A number of different approaches from candidates was seen in this question, most of which could be used to answer it correctly. A number of candidates did not calculate the percentage increases in each 10-year period but still were able to gain full marks.

Question 3

Well answered on the whole. The vast majority of candidates used Pythagoras' theorem to find the lengths needed, although some used incorrect initial expressions in 1 of the triangles. Errors were also seen in calculating the final charge, with some adding VAT on to the cost with the labour included and others only adding 1 day's labour. This was the OCW question on this paper, and most candidates gained both marks which was pleasing to see. Work was easy to follow with appropriate units and workings shown.

Question 6

The majority of candidates knew how to calculate the volume of the cylinder. Some then did not complete the price calculation correctly, misusing the values given in the question.

Question 7

In part (b) it was clear that some candidates did not know how to answer the question.

Question 8

Most parts of this question were answered well. In part (b), some candidates calculated the correct interquartile ranges but did not think Alfredo was correct.

Question 9

In part **(a)(i)**, most candidates used correct bounds in the question. Some incorrectly calculated the volume of the bar, while others thought the four longer surfaces were the same size.

Part **(a)(ii)** involved random sampling, and it was pleasing to see that candidates' responses are improving in general.

Proportionality was assessed in part **(b)**. The question was answered quite well on the whole, although work was poorly presented on occasion making it difficult to follow the method used.

Question 10

Part **(a)** was not well answered. Most incorrectly thought that the nominal annual interest rate was applied to the balance in the account every month. Some who used the correct monthly interest rate made a small error in calculating the number of months that the account had been open for.

Part **(c)** was also not well answered. Most were unable to communicate that the AER takes into account the compounding effect over the year of the interest gained each month.

Question 11

This question was answered quite well on the whole. Many used the sine/cosine rules successfully on the triangle at ground level. It was also pleasing to see many candidates were able to visualise the 3-D nature of the problem and were able to select and use correct trigonometric ratios to find the values needed.

Question 12

Part **(b)** was not well answered with candidates in general failing to show a correct method to find the volume of the building.

Part **(c)** assessed similar areas and volumes, and it was pleasing to see an improvement in candidates' responses here.

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/>

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