



GCSE MARKING SCHEME

SUMMER 2025

**GCSE
MATHEMATICS – NUMERACY
UNIT 2 – FOUNDATION TIER
3310U20-1**

About this marking scheme

The purpose of this marking scheme is to provide teachers, learners, and other interested parties, with an understanding of the assessment criteria used to assess this specific assessment.

This marking scheme reflects the criteria by which this assessment was marked in a live series and was finalised following detailed discussion at an examiners' conference. A team of qualified examiners were trained specifically in the application of this marking scheme. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners. It may not be possible, or appropriate, to capture every variation that a candidate may present in their responses within this marking scheme. However, during the training conference, examiners were guided in using their professional judgement to credit alternative valid responses as instructed by the document, and through reviewing exemplar responses.

Without the benefit of participation in the examiners' conference, teachers, learners and other users, may have different views on certain matters of detail or interpretation. Therefore, it is strongly recommended that this marking scheme is used alongside other guidance, such as published exemplar materials or Guidance for Teaching. This marking scheme is final and will not be changed, unless in the event that a clear error is identified, as it reflects the criteria used to assess candidate responses during the live series.

WJEC GCSE MATHEMATICS - NUMERACY

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GCSE Numeracy Unit 2: Foundation Tier	Mark	Comments
1(a) (3, 2) and (3, 6) and (5, 3)	B2	Answer space takes precedence The 3 sets of coordinates can be in any order but not reversed. Award B1 for the coordinates of 1 or 2 correct points. Award B1 if all 3 correct coordinates (not reversed) with x and/or y included e.g. (3x, 2y) and (3x, 6y) and (5x, 3y) Award SC1 for all 3 coordinates reversed i.e. (2, 3) and (6, 3) and (3, 5)
1(b) Impossible	B1	
2(a) 9, 5, 3, 1	B3	4 single digits must be seen to award any marks Answer space takes precedence Award B3 for all 5 conditions met Award B2 for 4 conditions met Award B1 for 3 conditions met
2(b) $112.50 + 84.90 - 30$ or equivalent (£)167.4(0) (10% discount =) (£)16.74	M1 A1 B1	May be seen in stages The addition and subtraction must be carried out before the 10% is applied Answer space takes precedence Allow B1 if a correct 10% seen but further working done to find the discounted cost with this answer on the answer line FT 'their 167.4(0)' ISW such as $167.4(0) - 16.74 = (£)150.66$ Award SC2 for an unsupported answer of (£)150.66
3(a) (i) 5	B1	
3(a)(ii) 33	B2	Look at pictogram Award B1 for any one of the following • $2 \times 5.5 \times 3$ • 11×3 • 11 lots of 3 • $2 \times 3 \times 5 + (1 \times) 3$ • 6, 6, 6, 6, 6, 3 seen i.e. five 6s and one 3 • 11 (may be seen in pictogram)

3(b)(i) $7 \times 145000 + 11 \times 179000 + 5 \times 226000$ $(1015000 + 1969000 + 1130000)$ (£)4114000 or (£)4.114 million	M2 A1	FT 'their number of houses' in (a)(i) and number of houses used or 'their 33' ÷ 3 which can be rounded or truncated in (a)(ii) Award M1 for any one of the following: - sight of the sum of any 2 correct products - sight of the 3 products but not added $3.5 \times 145000 + 5.5 \times 179000 + 2.5 \times 226000$ - sight of 2 of 1015000, 1969000 or 1130000 but not added CAO If 4114000 seen but further working completed, award M2A0
3(b)(ii) $(226000 - 145000 =)$ (£)81000	B1	Do not allow -81000 Do not accept 145000 to 226000
3(c)(i) Using the 3 given rectangles: $8 \times 14 + 4 \times (18 + 4) + 12 \times 18$ or $(8 \times 14) + (4 \times 22) + (12 \times 18)$ $(112 + 88 + 216)$ OR Using a rectangle with the whole width of the plan of the house with 2 smaller rectangles: $14 \times (8 + 4 + 12) + 4 \times (18 - 14 + 4) + 12 \times (18 - 14)$ or $(14 \times 24) + (4 \times 8) + (12 \times 4)$ $(336 + 32 + 48)$ OR Using a large rectangle and subtracting 2 smaller rectangles: $(8 + 4 + 12) \times (18 + 4) - 4 \times 12 - 8 \times (18 - 14 + 4)$ or $(24 \times 22) - (4 \times 12) - (8 \times 8)$ $(528 - 48 - 64)$ or equivalent 416 (square feet)	M2 A1	Check diagram Award M1 for any one of the following: - sight of the sum of any 2 correct products - sight of the 3 correct products 8×14 and $4 \times (18 + 4)$ and 12×18 (but not added) - sight of any 2 of 112, 88 or 216 - sight of the 3 correct products 14×24 and 4×8 and 12×4 (but not added) - sight of any 2 of 336, 32 or 48 - sight of $14 \times 24 + 4 \times 8$ (May be embedded) - sight of $14 \times 24 + 12 \times 4$ (May be embedded) - sight of the 3 correct products 24×22 and 4×12 and 8×8 - sight of any 2 of 528, 48 or 64 - sight of $24 \times 22 - 4 \times 12$ (May be embedded) - sight of $24 \times 22 - 8 \times 8$ (May be embedded) CAO Answer line takes precedence

4(a) <u>Alternative method 2 (London eye 1st)</u> (Cost of children's entry to London eye: $3 \times 32.50 =$ (£)97.5(0) B1 (Cost of adult's entry to London eye: $2 \times 36 =$ (£)72 B1 (Total cost of travel: $466 - 97.50 - 72 =$ (£)296.5(0) B1 (Cost of children's travel: $3 \times 41.80 =$ (£)125.4(0) B1 (Cost of adult train travel: $296.50 - 125.40 =$ (£)171.1(0) B1 (Each adult: $171.10 \div 2 =$ (£)85.55 B1		May be implied within further working FT 466 - 'their stated or derived 97.5(0)' – 'their stated or derived 72' correctly evaluated and not using the given values alone May be implied by sight of 171.1(0) FT 'their 296.50' – 'their 125.40' correctly evaluated provided at least B1 previously awarded FT 'their 171.1(0)' $\div 2$ correctly evaluated
4(a) <u>Alternative method 3 (Without part answers)</u> Cost for children's travel and total London Eye $3 \times 41.80 + 2 \times 36 + 3 \times 32.50$ $(125.40 + 72 + 97.50 =$ (£)294.9(0)) (Cost of adult travel:) $466 - 3 \times 41.80 - 2 \times 36 - 3 \times 32.50$ (466 – 294.90) (£)171.1(0) (Each adult: $171.10 \div 2 =$ (£)85.55	B3 M1 A1 B1	May be implied within further working May be seen in stages Award B2 for any 2 products added Award B1 for any one of 125.40 or 72 or 97.50 FT 466 – 'their stated or derived 125.40' – 'their stated or derived 97.5(0)' – 'their stated or derived 72' provided at least B1 previously awarded and not using the given values CAO FT 'their 171.1(0)' $\div 2$ correctly evaluated
4(a). Organisation and communication Writing	OC1 W1	For OC1, candidates will be expected to: • present their response in a structured way • explain to the reader what they are doing at each step of their response • lay out their explanations and working in a way that is clear and logical • write a conclusion that draws together their results and explains what their answer means For W1, candidates will be expected to: • show all their working • make few, if any, errors in spelling, punctuation and grammar • use correct mathematical form in their working • use appropriate terminology, units, etc.

4(b) 9(cm) (± 2mm) 9 $\times$ 15 135 (metres)	B1 M1 A1	(8.8 (cm) to 9.2(cm)) FT 'their height (9)' Ignore any attempt to change units if 9 $\times$ 15 seen Award B1 M1 A0 for example: 9 $\times$ 15 = 135 then 135 $\times$ 100 = 13500 (cm) Measurements of: 8.8 cm gives 132 m 8.9 cm gives 133.5 m 9 cm gives 135 m 9.1 cm gives 136.5 m 9.2 cm gives 138 m Only award B1M1A1 for an unsupported correct answer
5. 160($\pm 2^\circ$)	B1	
6(a) 378 g dark chocolate 72 g cocoa powder 225 g yoghurt 45 g sugar	B3	B2 for 2 or 3 correct quantities B1 for any one of the following: 1 correct quantity - appropriate sight of 4.5, 18 $\div$ 4 or 9 $\div$ 2, may be implied by appropriate addition seen, e.g. 84 + 84 + 84 +84 + $\frac{1}{2}$ of 84, 4 $\times$ 16 + $\frac{1}{2}$ of 16
6(b) (yoghurt : sugar) 5 : 1 and (dark chocolate : cocoa powder) 21 : 4	B2	FT from (a) for equivalent difficulty for B2 or B1 Mark the answer space unless blank or shows the original ratios before working B1 for any one of the following: (yoghurt : sugar) 5 : 1 (dark chocolate : cocoa powder) 21 : 4 21 : 4 and 5 : 1 1 : 5 and 4 : 21 50 : 10 and 84 : 16 both with one stage of simplification leading to ratios with integer amounts less than those given in the original recipe, e.g. (yoghurt : sugar) 25 : 5, 10 : 2, 15 : 3, 45 : 9 and (dark chocolate : cocoa powder) 63 : 12, 42 : 8

7. <u>Charge for stay in two tents for 5 nights</u> (Two tents pitch fees $\Rightarrow$) $2 \times 24.5(0) \times 5$ (= £245) $\quad \quad \quad + \quad \quad \quad (\quad + \quad)$ (Cost 4 people for 5 nights $\Rightarrow$) $6 \times 4 \times 5$ (= £120) OR $(2 \times 24.5(0) + 6 \times 4) \times 5$ (= 73 $\times$ 5) (Total cost if taking 2 tents for 5 nights $\Rightarrow$) (£) 365	M2 A1	May be seen in stages Complete unspoilt method may be seen in stages M1 for any one of the following, (2 tents for 5 nights) $2 \times 24.5(0) \times 5$ (= £245) (4 people for 5 nights) $6 \times 4 \times 5$ (= £120) CAO If M0 A0, award SC1 for a <u>specific statement</u> of any one of the following, with 'tent : people' appropriate ignore subsequent additional spurious costs: (total cost per night) $2 \times 24.5(0) + 6 \times 4$ (= £73) (each pitch, per night) $24.5(0) + 6 \times 2$ (= £36.50) (each pitch, 5 nights) $24.5(0) \times 5 + 6 \times 2 \times 5$ (= £182.50)
<u>Discount with 1 tent for 4 friends and/or 5 nights</u> Discount considered, any one of the following: (Discount for 4 p per night $\Rightarrow$) $0.22 \times 6 \times 4$ (= £5.28) (Discount for 1 p 5 nights $\Rightarrow$) $0.22 \times 6 \times 5$ (= £6.60) (Discount for 4 p 5 nights $\Rightarrow$) $0.22 \times 6 \times 5 \times 4$ (= £26.40) (Discounted cost for 4 p per nt $\Rightarrow$) $0.78 \times 6 \times 4$ or $6 \times 4 - 0.22 \times 6 \times 4$ (= £18.72) (Discounted cost for 1 p 5 nights $\Rightarrow$) $0.78 \times 6 \times 5$ or $6 \times 5 - 0.22 \times 6 \times 5$ (= £23.40) (Discounted cost for 4 p 5 nights $\Rightarrow$) $0.78 \times 6 \times 4 \times 5$ or $6 \times 4 \times 5 - 0.22 \times 6 \times 4 \times 5$ (= £93.60) <u>Saving made if only 1 tent, 4 people, 5 nights</u> $0.22 \times 6 \times 4 \times 5 + 24.5(0) \times 5$ (= £26.40 + £122.50) or $365 - 0.78 \times 6 \times 4 \times 5 - 24.5(0) \times 5$ (= £365 – £93.60 – £122.50) (= £365 – £216.10) Saving is (£)148.9(0)	M2 M2 M2 A1	Accept equivalents and may be embedded in further working FT for all of the following for all method marks: 'their 6×4' or 'their 6×5' or 'their $6 \times 4 \times 5$' 'their cost for 4 friends per night' 'their cost for 4 friends for 5 nights' M1 for appropriate sight or implication in working of any one of the following: (Discount pppn) 0.22×6 (= £1.32)* (Discounted cost pppn) 0.78×6 (= £4.68)* *may be embedded 'their 0.78' $\times 6 \times 4 \times 5$ provided $0.58 \leq \text{'their 0.78'} \leq 0.98$ (if $1 - 0.22$ not seen) FT for all of the following for M2 or M1: (2 pitches total cost) 'their 365', ($\frac{1}{2}$ the cost of 2 tents for 5 nights) 'their 245' $\div 2$ or 'their 24.50×5' 'their 0.78', provided $0.58 \leq \text{'their 0.78'} \leq 0.98$ (if $1 - 0.22$ not seen) M1 for of any one of the following with no additional spurious costs: total cost tent (for 5 nights, not discounted) $24.5(0) \times 5$ (= £122.50) total cost (tent + 4 people for 5 nights) $0.78 \times 6 \times 4 \times 5 + 24.5(0) \times 5$ (= £216.10) total saving (per night) $0.22 \times 6 \times 4 + 24.5(0)$ (= 5.28 + 24.50 = £29.78) $365 \div 5 - 0.78 \times 6 \times 4 - 24.5(0)$ (= 73 – 43.22 = £29.78) CAO. Mark final answer Allow A1 for final saving (£)149, provided not from incorrect working (allow from £365 – £216) A0 for (£)148.90 not the final answer for the saving, e.g. saving is £365 – £148.90 = £216.10 (£)148.90 labelled as cost for using 1 tent
8. $28350 \div 2$ or $\frac{1}{2} \times 28350$ 14175 (cm²)	M1 A1	Mark final answer

9. (a =) 65 (°) (b =) 115 (°) (c =) 115 (°) (d =) 80 (°)	B1 B1 B1 B1	No FT for an angle of 0°, 90°, 180° and 360° FT 180 – ‘their a’ FT ‘their b’ FT 145 – ‘their a’, provided ‘their a’ ≠ 72.5°
10(a) (Percentage profit =) $\frac{1140 - 600}{600} (\times 100)$ or $\frac{1140}{600} (\times 100) - 1 (\times 100)$ or 0.9 (× 100) 90(%)	M1 A1	If no marks, award SC1 for an answer of 190(%) (from $\frac{1140}{600} \times 100$)
10(b) $10 \times 8 \times \text{height} = 1648$ or (height =) $\frac{1648}{10 \times 8}$ 20.6 (cm)	M1 A1	Allow for intention, e.g. $1648 \div 10 \times 8$, $10 \times 8 \times \dots = 1648$ Accept 21(cm) and allow 20(cm) provided not from incorrect working Allow an embedded answer.
11(a) 173 cm	B1	
11(b) 166 (cm)	B1	FT for the median of the 11 students excluding ‘their answer to (a)’
11(c) Positive	B1	Ignore additional descriptive terms
11(d) 169 cm	B2	B1 for any one of the following: ‘Megan’ unambiguously indicated (labelled) at (169, 168) (allow for this plot circled) - An answer of 172(cm) (Elwyn’s height)
11(e) $160 + 0.1 \times 160$ or $160 \times 1.1(0)$ or equivalent (Elsa’s height) 176 (cm) (Elsa’s arm span) 169.5 (cm)	M1 A1 A1	Answer spaces take precedence Accept for appropriate sight of 176 (cm) or for ‘Elsa’ unambiguously indicated at (176, 169.5) An answer of 176(cm) implies M1 If answers are reversed (169.5 cm and 176 cm) award M1 A0 A1