



GCSE MARKING SCHEME

AUTUMN 2019

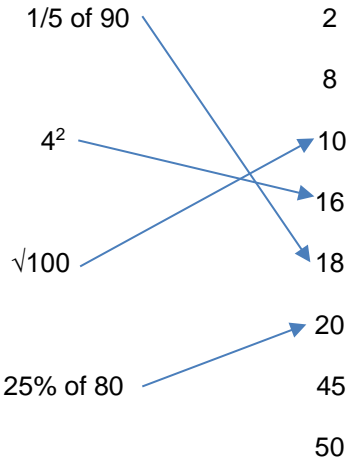
**GCSE
MATHEMATICS – UNIT 1
FOUNDATION TIER
3300U10-1**

INTRODUCTION

This marking scheme was used by WJEC for the 2019 examination. It was finalised after detailed discussion at examiners' conferences by all the examiners involved in the assessment. The conference was held shortly after the paper was taken so that reference could be made to the full range of candidates' responses, with photocopied scripts forming the basis of discussion. The aim of the conference was to ensure that the marking scheme was interpreted and applied in the same way by all examiners.

It is hoped that this information will be of assistance to centres but it is recognised at the same time that, without the benefit of participation in the examiners' conference, teachers may have different views on certain matters of detail or interpretation.

WJEC regrets that it cannot enter into any discussion or correspondence about this marking scheme.

7.(a)(i) ($x =$) 8	B1	Accept embedded answer. Mark final answer.
7.(a)(ii) ($x =$) 14	B1	Accept embedded answer. Mark final answer.
7.(b)(i) $8n$	B1	Mark final answer.
7.(b)(ii) $m - 3$	B1	Mark final answer.
8. 	B4	B1 for each correct answer
9. (Total length in inches =) $[4 + 1\frac{1}{2}] \times 3 \times 12$ or equivalent This may be given in stages, e.g. (4 yards =) $4 \times 3 \times 12$ (= 144 inches) (1 yard =) $1 \times 3 \times 12$ (= 36 inches) (1/2 yard =) $\frac{1}{2} \times 3 \times 12$ (= 18 inches) AND with intention to add (Total length in inches =) 198 (inches)	M2 A1	M1 for use of ' $\times 3 \times 12$ ' with 4 or $1\frac{1}{2}$ or 1 or $\frac{1}{2}$ OR for $[4 + 1\frac{1}{2}] \times 3$ (= $16\frac{1}{2}$ feet) OR for $[4 + 1\frac{1}{2}] \times 12$ (= 66) CAO
Organisation and Communication. Accuracy of writing.	OC1 W1	For OC1, candidates will be expected to: <ul style="list-style-type: none"> • present their response in a structured way • explain to the reader what they are doing at each step of their response • lay out their explanation 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: <ul style="list-style-type: none"> • 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

<p>10. $(x =) \frac{360 - 120}{4}$</p> <p style="text-align: right;">(x =) 60</p>	<p>M2</p> <p>A1</p>	<p>M1 for $4x + 120 = 360$ OR for $(4x =) 360 - 120$ OR for sight of 240 OR for '<u>their 360</u>' - 120, where 'their 360' > 120</p> <p>M0 for $\frac{120}{4}$</p> <p>CAO</p>
<p>11.</p> <p style="text-align: right;">-4(°C)</p> <p style="text-align: center;">Up 3(°C)</p> <p style="text-align: left;">-1(°C)</p>	<p>B1</p> <p>B1</p> <p>B1</p>	<p>Allow +3 (but not 3) for this B1.</p>
<p>12. Showing (7%), 60% and 30%</p> <p>OR $\frac{7}{100}$, $\frac{60}{100}$ and $\frac{30}{100}$</p> <p>OR 0.07, 0.6 and (0.3)</p> <p>OR three correct calculations for a common amount.</p> <p style="text-align: center;">7% 0.3 $\frac{3}{5}$ in order</p>	<p>B2</p> <p>B1</p>	<p>B2 for all correct %, OR all correct fractions <u>with a common denominator</u>, OR all correct decimals OR correct work using a common amount, OR a valid combination that allows full comparison.</p> <p>B1 for one correct conversion <u>that still allows a full comparison</u>. (i.e. allow one error in attempt at a common format.)</p> <p>B1 Allow any unambiguous indication (e.g. 'converted values'). Strict FT of 'their work' if at least B1 gained. Correct answer with <u>no</u> other marks awarded, gains final B1.</p>
<p>13.(a) 2</p>	<p>B2</p>	<p>B1 for sight of - 18 (not - 18x) OR B1 for sight of (+)20 (not 20y and not -20). Mark final answer.</p>
<p>13.(b) $6g - 9f$</p>	<p>B2</p>	<p>Must be an expression for B2. B1 for sight of (+)6g OR sight of - 9f. B1 for $6g + - 9f$. Mark final answer.</p>
<p>13.(c) $12x - 20$</p>	<p>B1</p>	<p>Must be shown as an expression. C.A.O. Mark final answer.</p>
<p>14. 3 AND 11</p>	<p>B2</p>	<p>Accept in any order. B1 for two numbers with a sum of 14 OR B1 for two numbers with a range of 8. Accept non-integers for B1 marks.</p>
<p>15. $x = 180 - 90 - 50$ or equivalent = 40(°)</p> <p style="text-align: center;">(Bearing =) 130(°)</p>	<p>M1</p> <p>A1</p> <p>B1</p>	<p>May be seen on diagram.</p> <p>OR FT 90 + 'their x'. Must be in 3-digit form.</p>
<p>16.(a) 9</p>	<p>B1</p>	
<p>16.(b) $\frac{3}{14}$ ISW</p>	<p>B2</p>	<p>B1 for $x/14$ if $x < 14$. B1 for $3/y$ if $y > 3$. Penalise -1 for incorrect notation, e.g. 3 out of 14, $3 \div 14$, $3 : 14$ etc.</p>

17.	36	B3	B2 for 4, 9 or 12. B1 for 1, 3, 6, 15, 16, 18, 20, 21, 24, 25, 27, 28, 30, 33 or 39. B0 for any other numbers.
18.(a)	4.034 kg	B1	
18.(b)	815 cm	B1	
18.(c)	4000 mm ³	B1	
19.	<p>(Area of ABCF =) $91 = 7 \times CF$ (CF = $91/7 =$) 13 (cm)</p> <p>(Area CDEF =) $\frac{(13 + 8) \times 6}{2}$</p> <p style="text-align: right;">= 63 (cm²)</p>	<p>M1 A1</p> <p>M1 A1</p>	<p><i>Lengths may be shown on the diagram.</i></p> <p>Allow AB shown as 13 (cm) for M1 A1. Allow an embedded 13 e.g. $7 \times 13 = 91$ for M1 A1. If '13' <u>seen</u> to come from '6 + 7' then M0 A0.</p> <p>FT 'their stated or shown length CF'. Must be equal to AB if only AB calculated. Allow M1 for correct intent <u>seen</u>. e.g. $13 + 8 \times 6 \div 2$ (M0 if only unsupported answer of 37 given.)</p>
20.(a)	$1 - (0.2 + 0.3 + 0.25 + 0.15)$ or equivalent = 0.1	M1 A1	
20.(b)	0.3×200 or equivalent = 60	M1 A1	A final answer of 60/200 implies M1 A0.