



GCSE MARKING SCHEME

AUTUMN 2020

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

INTRODUCTION

This marking scheme was used by WJEC for the 2020 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.

WJEC GCSE MATHEMATICS
AUTUMN 2020 MARK SCHEME

GCSE Mathematics Unit 1: Foundation Tier	Mark	Comments
1. (a) Angle of 35° drawn at A	B1	Accept 33° to 37° Point alone is not sufficient.
1.(b) Circle radius 7cm (diameter 14 cm)	B1	Accept radius 6.8 (cm) to 7.2 (cm)
2.(a) 5433	B1	
2.(b) 174	B1	
2.(c) 75	B1	
2.(d) $6 \times 7 \div 2$ = 21	M1 A1	If no marks, award SC1 for sight of 42.
3.(a) 600	B1	
3.(b) 4000	B1	
4.(a) D	B1	
4.(b) S	B1	
5.(a) 9	B1	
5.(b) \div $-$	B1	
6.(a) 53	B1	
6.(b) 125	B1	
7.(a) 70 (%)	B1	
7.(b) 6 sectors shaded	B1	
8. $\frac{1}{3} \times 180(^{\circ})$ OR $\frac{2}{3} \times 180(^{\circ})$ or equivalent 60° OR 120° (180 – 60 =) 120 (°) OR (180 – 120 =) 60 (°)	M1 A1 B1	A1 for either 60° OR 120° FT 'their 60' or 'their 120'. Two angles which add to 180° will get this B1. If no marks award SC1 for one angle twice the size of the other.
<u>Alternative Method</u> $2x + x = 180 (^{\circ})$ or $3x = 180 (^{\circ})$ $x = 60 (^{\circ})$ $2x = 120 (^{\circ})$	M1 A1 B1	FT 2 × 'their x' or 180 – 'their x'
9.(a) 16g	B1	
9.(b) (y =) 9	B1	Accept embedded answers. Mark final answer.
9.(c) (w =) 30	B1	Accept embedded answers. Mark final answer.

13.(b)	6 (hours) 40 (minutes)	B1									
13.(c)	265 (seconds)	B2	B1 for sight of 435 AND 170 OR B1 for sight of 300 AND 35 OR B1 for 4 minutes 25 seconds.								
14.(a)	Line $x = -4$ drawn	B1	Line must be at least 2 units long. B0 if 'extra' lines drawn unless correct line unambiguously identified.								
14.(b)(i)	Point C shown at $(-2, -4)$	B2	Allow B2 if point C not labelled but is unambiguously at the correct position (eg 'end of line'). Otherwise, B1 if Point C at $(-2, y)$ $y \neq 3$. ($\hat{B}AC = 90^\circ$) SC1 for point C at $(5, -4)$.								
14.(b)(ii)	$(-2, -4)$	B1	FT 'their unambiguously identified position of point C'. Allow missing brackets.								
15.(a)	2700	B2	B1 for sight of 27 OR sight of 100. Mark final answer.								
15.(b)	0.08	B1	Mark final answer								
15.(c)	<u>Correctly</u> using a common denominator. $\frac{13}{18}$ or equivalent. 18	M1 A1	Mark final answer.								
16.	<table border="1"> <thead> <tr> <th>Answer</th> <th>Yes</th> <th>No</th> <th>Not sure</th> </tr> </thead> <tbody> <tr> <td>Number of students</td> <td>150</td> <td>50</td> <td>100</td> </tr> </tbody> </table>	Answer	Yes	No	Not sure	Number of students	150	50	100	B1 B3	B1 for (Yes =) 150 C.A.O. B2 for (No =) 50 AND (Not sure =) 100. or FT 'their Yes' for (No =) $\frac{1}{3}(300 - \text{'Yes'})$ AND (Not sure =) $\frac{2}{3}(300 - \text{'Yes'})$ If B2 not gained, then B1 for (No =) 50 OR (Not sure =) 100 or FT 'their Yes' for (No =) $\frac{1}{3}(300 - \text{'Yes'})$ OR (Not sure =) $\frac{2}{3}(300 - \text{'Yes'})$ or B1 for 'No' + 'Not sure' = 150 or B1 if 'Not sure' = $2 \times \text{'No'}$. or B1 for Yes + No + Not sure = 300.
Answer	Yes	No	Not sure								
Number of students	150	50	100								
17.	a = 113 b = 67 c = 113	B1 B1 B1	C.A.O. OR FT 180 – 'their a'. OR FT = 'their a' OR FT 180 – 'their b'.								
18.(Probability of Puffin Island=)	$1 - 0.4 - 0.15 - 0.25 = 0.2$ (Number of cards showing Puffin Island =) $0.2 \times 80 = 16$	M1 A1 M1 A1	An unsupported answer of 0.56 implies M1 FT 'their <u>stated</u> P(Puffin Island)' $\times 80$, only if 'their <u>stated</u> P(Puffin Island)' < 1 . 16/80 is M1A0 unless 16 has been seen.								
<u>Alternative method</u> (Number of cards showing other 3 islands =) $0.4 \times 80 + 0.15 \times 80 + 0.25 \times 80$ or equivalent $= 64$ (Number of cards showing Puffin Island =) $80 - 64 = 16$		M1 A1 M1 A1	Allow M1 for sight of 32 AND 12 AND 20. FT 80 – 'their <u>derived</u> 64', only if 'their <u>derived</u> 64' < 80 . 16/80 is M1A0 unless 16 has been seen.								

