



GCSE MARKING SCHEME

AUTUMN 2020

**GCSE
MATHEMATICS - NUMERACY
UNIT 1 – FOUNDATION TIER
3310U10-1**

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 - NUMERACY

AUTUMN 2020 MARK SCHEME

GCSE Mathematics Numeracy Unit 1: Foundation Tier	Mark	Comments
1(a) (i) an even chance	B1	
1(a) (ii) 18	B1	
1(a) (iii) 16	B1	
1(b) 8007	B1	
1(c) No and a suitable explanation given indicating that the length of a pool cannot be 25 miles long. Eg No because 25 miles is far too long for a swimming pool No because he means 25 metres for the length of a pool 'No, the pool cannot be 25 miles long' 'No because it's metres not miles' 'No because the pool is 25 metres not miles'	E1	Allow Eg 'No, the pool is not 25 miles long' 'No, because 1 length doesn't equal 25 miles' 'No because the length of a swimming pool is not 25 miles' 'No because 25 miles would be far too big to swim' Do not accept 'No because we were not given the distance for a length' 'No because we don't know the length of a pool' 'No because there are 15 miles in a length.'
1(d) cylinder	B1	
1(e) (13:30) (13:55) 14:20 14:45 (15:10) 15:35	B2	Accept times given in 12 hour and/or 24 hour format Award B2 for all 3 times correct Award B1 for 1 or 2 times correct For B1, FT 'their 14:20' + 25 minutes correctly evaluated provided both times lie between 13:55 and 15:10
2(a) 11	B1	
2(b) (size) 8	B1	
2(c) (size) 12	B1	
2(d) No and suitable reason given Eg 'No because you increase by 2 each time' 'No because 5 isn't double 3' 'No, the rule is +2 (not $\times 2$)' 'No, because if you double the circles in size 2 you get 10 which isn't 7 circles in size 3.' 'No because you just add on 2 to the number of circles before it.' 'No because you add the size number + size number + 1' 'No because to get size 3 you add 3 and 4'	E1	Allow 'No because size 1 is 3, size 2 is 5 then size 3 is 7 so it isn't doubling' 'No because it goes up by 2'

5(a) 35°	B1	
<p>5(b) 53° drawn ($\pm 2^\circ$) in correct place 78° drawn ($\pm 2^\circ$) in correct place</p> <p>Triangle completed</p> <p>Two sides measured correctly (9.5 cm and 11.7 cm)</p> <p>95 (m) and 117 (m)</p>	<p>B1 B1</p> <p>B1</p> <p>B2</p> <p>B1</p>	<p>If B0, B0 but 53° ($\pm 2^\circ$) and 78° ($\pm 2^\circ$) swapped, award SC1</p> <p>Award this B1 provided at least one previous B1 or SC1 awarded</p> <p>B1 for each line. Allow ± 2 mm. (Range is: 9.3cm to 9.7cm and 11.5cm to 11.9cm) FT their completed triangle This may be implied by their final answers</p> <p>(Range is 93m to 97m and 115m to 117m) FT 'their measurements' provided a triangle drawn</p> <p>If previous B2 is awarded B0 or B1 then FT for the final B1 for at least one of 'their measurements' $\times 10$ or at least one of 'their measurements rounded to the nearest whole number of cms' $\times 10$</p> <p>eg for 8.4cm award final B1 for 80 or 82 to 86</p> <p><i>Note: the 2 answers given must correspond in size to the sides of the triangle.</i></p>
<p>6. (Cost of strawberries) $20 - 6.8(0) - 1.5 \times 4$ (£) 7.2(0)</p> <p>(Mass of strawberries) $(20 - 6.8(0) - 1.5 \times 4) \div 3.6$ or $7.2(0) \div 3.6$</p> <p>2 (kg)</p>	<p>M2 A1</p> <p>M1</p> <p>A1</p>	<p>M1 for (Blueberries cost) $1.5 \times 4 (=6)$ Award M2, A1 for appropriate sight of (£)7.2(0) irrespective of any further inappropriate working</p> <p>In FT allow sight of 14.2(0) as indication of $20 - 6.8(0)$ attempted Allow convincing appropriate repeated addition</p> <p>FT provided there has been an attempt at a subtraction of the cost of blueberries from $20 - 6.8(0) (=13.2(0))$, 20 or 6.8(0) and provided M1 previously awarded, e.g.</p> <ul style="list-style-type: none"> • $(20 - 1.5 \times 4) \div 3.6$ • $(6.8(0) - 1.5 \times 4) \div 3.6$ <p>OR</p> <p>FT $(20 - 6.8(0) - \text{'their cost of blueberries'}) \div 3.6$ provided 'their cost of blueberries' $> (\text{£})4$</p> <p>CAO. Must be from correct working</p> <p>If no marks, award SC1 for an answer of 3.6(6kg) or 3.67(kg) or 3.7(kg) (from $(20 - 6.80) \div 3.6$)</p> <p>An answer only of 2 kg is awarded all 5 marks (strictly provided no incorrect working seen - this is answer only). Any other answer only, such as '2 bags', is awarded no marks.</p>

<p>10(a)</p> <p>(Cost of flags $4 \times 40 =$) 160(p)</p> <p>(Cost of muffin cases) $(12 \times 4 \div 16) \times 22$ or 3×22 (=) 66 (p)</p> <p>(Cost of ingredients) $(12 \times 4 \div 6) \times 25$ or 8×25 (=) 200 (p)</p> <p>(Money taken in selling $12 \times 4 \times 30 =$) 1440(p)</p> <p>(Profit) $1440 - 160 - 66 - 200$ (= $1440 - 4.26$)</p> <p style="text-align: right;">1014(p) or (£)10.14</p>	<p>B1</p> <p>M1 A1</p> <p>M1 A1</p> <p>B1</p> <p>M1</p> <p>A1</p>	<p>Shown in pence, accept in £. However, if units are incorrect penalise – 1 once only, unless corrected in further work <i>Mark final answers at each stage (then possible FT)</i></p> <p><u>Accept use of ‘their derived number of flags’ as ‘their 48 (4×12) flags’ FT their consistent number of flags for all marks, then penalise -1 if ‘their derived number of flags’ ≠ 48</u></p> <p>If previous M0, M0 award SC1 here for sight of any one of the following:</p> <ul style="list-style-type: none"> • (number of packs of muffin cases) $12 \times 4 \div 16$ and (number of multiples of ingredients) $12 \times 4 \div 6$ • (number of packs of muffin cases =) 3 • (number of multiples of ingredients =) 8 <p>FT the following:</p> <ul style="list-style-type: none"> • ‘their 160’, provided from an attempt at 4×40, • ‘their 1440’, provided from an attempt at $12 \times 4 \times 30$, • ‘their 66’ and ‘their 200’ provided at least 1 M1 mark has previously been awarded <p>If units are given they must be correct</p>
<p>10(b) $\frac{400 - 80}{80} (\times 100)$ or equivalent 400 (%)</p>	<p>M1</p> <p>A1</p>	
<p>11(a) Unambiguously stating or implying ‘No’ with a reason, e.g. ‘all scattered’ ‘no relationship’,</p>	<p>E1</p>	<p>If a satisfactory reason is given ignore any further spurious comments</p> <p>Allow, e.g. ‘no pattern’, ‘no trend’, ‘no steady plotted points’, ‘you can’t draw a line of best fit’, ‘no steady line’, ‘they are not in a line’, ‘random points’, ‘points all over the place’, ‘plots are everywhere’, ‘no link’</p> <p>Do not accept, e.g. ‘no correlation’ ‘there were lots of birds in the garden when the wind speed was low and high’, ‘too many outliers’, ‘spread far apart’</p>
<p>11(b) 7 (birds)</p>	<p>B1</p>	