



Pearson
Edexcel

Mark Scheme (Results)

Summer 2022

Pearson Edexcel Level 2 Award
In Number and Measure (ANM20)
Paper 2B

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NOTES ON MARKING PRINCIPLES

1 **Types of mark**

M marks: method marks

A marks: accuracy marks

B marks: unconditional accuracy marks (independent of M marks)

2 **Abbreviations**

cao – correct answer only

isw – ignore subsequent working

oe – or equivalent (and appropriate)

indep - independent

ft – follow through

SC: special case

dep – dependent

3 **No working**

If no working is shown then correct answers normally score full marks

If no working is shown then incorrect (even though nearly correct) answers score no marks.

4 **With working**

If there is a wrong answer indicated on the answer line always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.

If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.

If it is clear from the working that the “correct” answer has been obtained from incorrect working, award 0 marks

If there is no answer on the answer line then check the working for an obvious answer.

Any case of suspected misread loses A (and B) marks on that part, but can gain the M marks. Discuss each of these situations with your Team Leader.

If there is a choice of methods shown, then no marks should be awarded, unless the answer on the answer line makes clear the method that has been used.

5 Follow through marks

Follow through marks which involve a single stage calculation can be awarded without working since you can check the answer yourself, but if ambiguous do not award.

Follow through marks which involve more than one stage of calculation can only be awarded on sight of the relevant working, even if it appears obvious that there is only one way you could get the answer given.

6 Ignoring subsequent work

It is appropriate to ignore subsequent work when the additional work does not change the answer in a way that is inappropriate for the question: e.g. incorrect cancelling of a fraction that would otherwise be correct

It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect e.g. algebra.

Transcription errors occur when candidates present a correct answer in working, and write it incorrectly on the answer line; mark the correct answer.

7 Parts of questions

Unless allowed by the mark scheme, the marks allocated to one part of the question CANNOT be awarded in another.

8 Use of ranges for answers

If an answer is within a range this is inclusive, unless otherwise stated.

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Question	Working	Answer	Mark	Notes
1		-6,-4,-3,-1, 3,5,7,8	1	B1 cao
2		3 : 5	2	M1 for 21 : 35 or any other equivalent ratio; award this mark (if correct working shown) even if incorrect simplifying is also shown. Award also for 5 : 3 given as a final answer. A1 cao
3		12, 42	2	M1 for $54 \div 9 (=6)$ or at least three other ratios that are equivalent to 2 : 7 A1 for 12 and 42; accept in either order.
4		114.57	1	B1 cao
5 (a)		130.08	2	M1 for correct alignment of digits ready for calculation with two operations performed correctly eg $118+35.68+16.4 (=170.08)$ or $118+35.68-40 (=113.68)$ or $35.68+16.4-40 (= 12.08)$ shown or only one arithmetic error throughout NB operations can occur at any stage of a partitioned calculation; professional decision as to whether those operations are appropriate or valid. or for correct additional of all four numbers ($=210.08$) A1 cao

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Question	Working	Answer	Mark	Notes																																	
5 (b)		340.44	2	<p>M1 for evidence of correctly set up method, most calculations correct, which may be by traditional methods, by a bones method or using grids, or partitioning; or correct multiplication seen eg carry 2 from 4×6</p> <p>5674 $\underline{\quad 6 \times}$ 34044</p> <table border="1" data-bbox="992 564 1406 719"> <tr><td></td><td>5</td><td>6</td><td>7</td><td>4</td><td>×</td></tr> <tr><td></td><td>3/0</td><td>3/6</td><td>4/2</td><td>2/4</td><td>6</td></tr> <tr><td>3</td><td>4</td><td>0</td><td>4</td><td>4</td><td></td></tr> </table> <table border="1" data-bbox="992 756 1547 876"> <tr><td>×</td><td>5000</td><td>600</td><td>70</td><td>4</td></tr> <tr><td>6</td><td>30000</td><td>3600</td><td>420</td><td>24</td></tr> <tr><td>or</td><td>300</td><td>36</td><td>4.2</td><td>.24</td></tr> </table> <p>A1 cao</p>		5	6	7	4	×		3/0	3/6	4/2	2/4	6	3	4	0	4	4		×	5000	600	70	4	6	30000	3600	420	24	or	300	36	4.2	.24
	5	6	7	4	×																																
	3/0	3/6	4/2	2/4	6																																
3	4	0	4	4																																	
×	5000	600	70	4																																	
6	30000	3600	420	24																																	
or	300	36	4.2	.24																																	
6		20		<p>M1 for $\frac{60}{300}$ (=0.2) oe or $60 \div 3$</p> <p>A1 cao</p>																																	
7 (a)		$\frac{2}{3}$ of 18	3	<p>M1 for $50 \div 5$ (=10) or for $18 \div 3 \times 2$ (=12) oe</p> <p>A1 for 10 and 12</p> <p>A1 ft (dep on M1 and on two figures shown) for conclusion eg “$\frac{2}{3}$ of 18”</p>																																	

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Question	Working	Answer	Mark	Notes
7 (b)		$\frac{9}{40}$	2	M1 for $\frac{90 \text{ cm}}{4 \text{ m}}$ or $\frac{90}{400}$ or $\frac{0.9}{4}$ or any equivalent fraction to this (eg partially cancelled); award this mark (if correct working shown) even if incorrect cancelling is also shown A1 cao
8		4.32	3	M1 for $240 \div 5 (=48)$ or $2.40 \div 5 (=0.48)$ or $240 \times 9 (=2160)$ or $2.40 \times 9 (=21.6)$ M1 for “48” $\times 9$ or “0.48” $\times 9$ or “2160” $\div 5$ or “21.6” $\div 5$ or $2.40 + 4 \times \text{“0.48”}$ or $240 + 4 \times \text{“48”}$ eg $2.40+1.92$ or $240+192$ or $2.40 \times 2 - \text{“0.48”}$ oe A1 cao
9	$\frac{20 \times 30}{0.5} = \frac{600}{0.5}$ $\frac{19 \times 30}{0.5} = \frac{570}{0.5}$ $\frac{20 \times 29}{0.5} = \frac{580}{0.5}$	1140 to 1200	3	M1 for rounding at least two figures to 19, 20, 29, 30 or 0.5 (which could be evidenced through partial calculation) M1 for rounding and one appropriate operation eg sight of 38, 40, 58, 60, 600, 570, 580 A1 for answer in the range 1140 to 1200 from rounded figures
10		$\frac{6}{35}$	1	B1 for $\frac{6}{35}$ or for any equivalent fraction; NB: do not isw incorrect cancelling

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Question	Working	Answer	Mark	Notes
11		221	3	<p>M1 for 15% of 260 eg $\frac{15}{100} \times 260 (=39)$ oe or 10% as 26 and 5% as 13 with 26+13 or any alternative partitioning method</p> <p>M1 for 260 – “39” or for 260×0.85 oe</p> <p>A1 cao</p> <p>SC B1 for an answer of 299</p>
12		$5\frac{7}{12}$	3	<p>M1 for use of a common denominator with at least one correct numerator eg $\frac{4}{12} + \frac{3}{12}$ [ignore whole numbers] or $\frac{10}{3} + \frac{9}{4} = \frac{40}{12} + \frac{27}{12}$ oe</p> <p>A1 for adding eg $\frac{67}{12}$ or $\frac{7}{12}$ [ignoring whole numbers] oe</p> <p>A1 cao</p>

