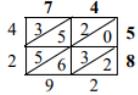


MULTIPLICATION AND DIVISION

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Foundation Tier

1.

11	4292	M1	for complete method with relative place value correct including addition of all the appropriate elements of the calculation	Working $\begin{array}{r} 592 \\ 3700 \\ \hline 4292 \end{array}$  <table border="1" data-bbox="1193 609 1372 682"> <tr> <td></td> <td>70</td> <td>4</td> </tr> <tr> <td>50</td> <td>3500</td> <td>200</td> </tr> <tr> <td>8</td> <td>560</td> <td>32</td> </tr> </table> $3500 + 560 + 200 + 32 = 4292$		70	4	50	3500	200	8	560	32
	70	4											
50	3500	200											
8	560	32											
		A1	cao										

Pearson Edexcel – Specimen 2 - Paper 1 (Non-Calculator) Foundation Tier

2.

3	a		28	B1
	b		1020	B1
	c		-8	B1

Pearson Edexcel – Specimen 1 - Paper 1 (Non-Calculator) Foundation Tier

3.

9		15561	M1 for complete method with relative place value correct (addition not necessary), allow 1 arithmetic error M1 (dep) for addition of all appropriate elements A1 cao
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OCR Thursday 07 November 2019- Morning (Non-Calculator) Foundation Tier

4.

1	(a)	103	1		
1	(b)	357	2	M1 for any correct complete method shown	For M1 condone 1 arithmetic error

5.

4	(a)	15 or 15000g clearly identified	2	M1 for figs 18 ÷ 6 [×5] oe	May be implied by 3 [×5]
4	(b)	3.51 or 351p clearly identified	1		
4	(c)	[0].03 oe	1		accept trailing zeros eg 0.030...

OCR Monday 11 November 2019 – Afternoon (Calculator) Foundation Tier

6.

5		29	2	M1 for 16×2 soi 32	May be $16 \times 2 - 3$
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OCR Tuesday 21 May 2019 – Morning (Calculator) Foundation Tier

7.

25		9 16 32	6	<p>Allow any letter providing use is consistent this method assumes Ayesha's age = a B4 for $a + a + 7 + 2(a + 7) = 57$ or better</p> <p>OR</p> <p>B1 for $[b=] a + 7$ oe e.g. $a = b - 7$ B1 for $c = 2b$ oe e.g. $\frac{c}{2} = b$ or $[c=] 2(a + 7)$ B1 for <i>their</i>'a' + <i>their</i>'b' + <i>their</i>'c' = 57 e.g. $a + b + c = 57$ must be algebraic</p> <p>AND</p> <p>M1FT for correctly solving <i>their</i> linear equation in one variable e.g. $4a = 36$ and $a = 9$</p> <p>AND</p> <p>M1 for substituting <i>their</i> a into $b = a + 7$ and $c = 2b$ e.g. $a = 8, b = 15$ and $c = 30$ implied by <i>their</i> answer which must be integers</p> <p>See appendix for other methods</p> <p>Mark working first,</p> <p><u>if 0 scored</u> then SC2 for 2 answers correct in the correct place or SC1 for 1 answer correct in the correct place</p> <p><u>or if 1 scored</u> then award the better of 1 or SC2 for 2 answers correct in the correct place</p> <p>to a maximum of 5 marks</p>
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OCR Thursday 6 June 2019 – Morning (Non-Calculator) Foundation Tier

8.

1	(a)	(i)	9.43	1	
		(ii)	3	1	
		(iii)	54	1	
	(b)	(i)	>	1	
		(ii)	<	1	
		(iii)	=	1	

OCR Thursday 8 November 2018 – Morning (Non-Calculator) Foundation Tier

9.

12	(a)	20	2	M1 for $80 \div 4$ oe	NOT $8 \div 0.4$
	(b)	$\frac{20 \times 40}{2} = 400$	3	M2 for $\frac{20 \times 40}{2}$ or M1 for 20 or 40 or 2	For 3 marks all 3 values must be rounded to 1sf

10.

17	(a)	12	3	M2 for $\frac{57.8-54.2}{0.3}$ oe or M1 for 57.8 – 54.2 or 3.6 seen or for repeated subtraction of 0.3 from 57.8 or for repeated addition of 0.3 to 54.2	Minimum of 2 repeats Minimum of 2 repeats
	(b)	Answer would be bigger oe	1		e.g. It would take more days It will take longer

OCR Monday 12 November 2018 – Morning (Calculator) Foundation Tier

11.

2		30	1		
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12.

12	(a)	[0].72	1		
	(b)	28	1		

Pearson Edexcel – Sample Papers - Paper 1 (Non-Calculator) Foundation Tier

13.

21		32.968	M1 for correct method (condone one error) A1 for digits 32968 A1 ft (dep M1) for correct placement of decimal pt
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OCR Sample Question Paper 1 – Morning/Afternoon (Calculator) Foundation Tier

14.

7	(a)	60 50	2 1 AO1.3a 1 AO3.1a	B1 for each
	(b)	2	2 1 AO1.3a 1 AO3.1a	M1 for 8 seen

AQA Tuesday 19 May 2020 – Morning (Non-Calculator) Foundation Tier

15.

Q	Answer	Mark	Comments
11(a)	10	B1	

Q	Answer	Mark	Comments
11(b)	0.73	B2	B1 0.7(...) or digits 73 seen
	Additional Guidance		
	Condone .73		B2
	Condone .7(...)		B1
	0.7.3		B1

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

16.

4	$12 \times \frac{1}{2}$	B1	
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AQA Thursday 11 June 2019 – Morning (Calculator) Foundation Tier

17.

1	20	B1	
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AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

18.

5	Alternative method 1											
	$\begin{array}{r} 83 \\ \times 26 \\ \hline 498 \\ 1660 \\ \hline \end{array}$ <p style="text-align: center;">or</p> $\begin{array}{r} 26 \\ \times 83 \\ \hline 78 \\ 2080 \\ \hline \end{array}$	M1	<p>at least one row correct, with the 0 correct for multiplication by the multiple of 10</p> <p>you may see the rows of working switched</p>									
	<p>their 498 + their 1660</p> <p>or</p> <p>their 78 + their 2080</p>	M1dep										
	2158	A1										
	Alternative method 2											
	<table border="1" style="margin: auto;"> <tr> <td></td> <td style="text-align: center;">20</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;">80</td> <td style="text-align: center;">1600</td> <td style="text-align: center;">480</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">60</td> <td style="text-align: center;">18</td> </tr> </table>		20	6	80	1600	480	3	60	18	M1	<p>at least three of the calculated values correct</p> <p>may be seen as 4 calculations, not in a grid</p>
		20	6									
	80	1600	480									
3	60	18										
<p>their 1600 + their 480 + their 60 + their 18</p>	M1dep											
2158	A1											

5 cont	Alternative method 3																					
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; text-align: center;">6</td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">6</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">6</td> <td style="text-align: center;">1</td> <td style="text-align: center;">8</td> <td style="text-align: center;">3</td> </tr> </table>		2		6		1	6	4	8	8	0	6	1	8	3	M1	at least three of the calculated values correct				
		2		6																		
	1	6	4	8	8																	
	0	6	1	8	3																	
	Total calculated for each diagonal with at least one correct carrying figure	M1dep	clear attempt to add each diagonal																			
	2158	A1																				
	Additional Guidance																					
	$20 \times 80 + 6 \times 3$ (= 1618)		M0A0																			
	Alternative method 1: if the place holder 0 is missing or misaligned, allow this to be evidenced by their 8 as the units value in the answer, or an 'x' in place of the 0																					
Alternative method 2: if numbers are broken down further they must have at least 8 of the calculated values correct in example below (oe) eg 40 40 3 and 10 10 6 (ie a maximum of one error)																						
Alternative method 3: diagonals must slope the correct way for M1 (unless recovered)																						
Diagonal lines not present is M0 unless this is recovered by seeing correct totals around the grid																						
Example of alternate method 3 with carrying completed once			M1M1depA0																			
<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; text-align: center;">6</td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">6</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;">11</td> <td style="text-align: center;">0₁</td> <td style="text-align: center;">6</td> <td style="text-align: center;">1</td> <td style="text-align: center;">8</td> </tr> <tr> <td></td> <td style="text-align: center;">5</td> <td style="text-align: center;">8</td> <td></td> <td></td> </tr> </table>		2		6		1	6	4	8	8	11	0 ₁	6	1	8		5	8				
	2		6																			
1	6	4	8	8																		
11	0 ₁	6	1	8																		
	5	8																				

AQA Thursday 7 June 2018 – Morning (Calculator) Foundation Tier

19.

14(a)	2950.2745(00...)	B1	
	Additional Guidance		
	2'950.2745 or 2,950.2745		B1
	2.950.2745		B0
	Allow correct rounding or truncation once full value seen		

14(b)	10 or 10^2 or 100 or 30	M1	
	$10 \times 10 \times 30$ or $10^2 \times 30$ or 100×30	M1dep	
	$10 \times 10 \times 30 = 3000$ and Sensible or $10^2 \times 30 = 3000$ and Sensible or $100 \times 30 = 3000$ and Sensible	A1ft	ft their answer to part (a) for the decision
	Additional Guidance		
	3000 (and Sensible) with no working		M0M0A0
	Their decision must be based on part (a) unless new calculation shown in part (b)		
	$10^2 \times 30 = 3000$ and $10^2 \times 29 = 2900$ and Sensible		M1M1A1
	$10^2 \times 30$ and $10^2 \times 29$ and Sensible		M1M1A0
	$10^2 \times 29 = 2900$ and Sensible		M1M0A0
	ft should be Sensible if their part (a) is 3000 to 1sf or vice versa eg (a) 295.02745 (b) $10 \times 10 \times 30 = 3000$ and Not sensible		(B0)M1M1A1ft

AQA Thursday 25 May 2017– Morning (Non-Calculator) Foundation Tier

20.

5	Alternative method 1		
	$\begin{array}{r} 73 \\ \times 58 \\ \hline 584 \\ 3650 \\ \hline \end{array}$ <p>or</p> $\begin{array}{r} 58 \\ \times 73 \\ \hline 174 \\ 4060 \\ \hline \end{array}$	M1	At least one row correct, with the 0 correct for multiplication by the multiple of 10 You may see the rows of working switched
	their 174 + their 4060 or their 584 + their 3650	M1dep	
	4234	A1	

5 cont	Alternative method 2											
	<table border="1" style="margin: auto;"> <tr> <td></td> <td style="text-align: center;">50</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;">70</td> <td style="text-align: center;">3500</td> <td style="text-align: center;">560</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">150</td> <td style="text-align: center;">24</td> </tr> </table>		50	8	70	3500	560	3	150	24	M1	At least three correct values
		50	8									
70	3500	560										
3	150	24										
their 3500 + their 560 + their 150 + their 24	M1dep											
	4234	A1										

5 cont	Alternative method 3																				
	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 30px; height: 30px; text-align: center;">5</td> <td style="width: 30px; height: 30px; text-align: center;">8</td> <td style="width: 30px; height: 30px;"></td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">5</td> <td style="text-align: center;">7</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> </table>			5	8		3	5	7	1	2	3	M1	At least three of the 2-digit numbers correct							
	5	8																			
	3	5	7																		
	1	2	3																		
	Total calculated for each diagonal with at least one correct carrying figure			M1dep	Clear attempt to add each diagonal																
	4234			A1																	
	Additional Guidance																				
	$50 \times 70 + 8 \times 3 (= 3524)$				M0M0A0																
	Alternative method 1 – if the place holder 0 is missing or mis-aligned, allow this to be evidenced by their 4 as the units value in their answer																				
For alternative method 3, diagonals must slope the correct way																					
Diagonal lines not present is M0 unless this is recovered by seeing correct totals around the grid																					
Example of alternative method 3 with carrying completed once																					
<table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td style="width: 30px; height: 30px; text-align: center;">5</td> <td style="width: 30px; height: 30px; text-align: center;">8</td> <td></td> </tr> <tr> <td style="text-align: right; padding-right: 5px;">3</td> <td style="text-align: center;">3</td> <td style="text-align: center;">5</td> <td style="text-align: center;">7</td> </tr> <tr> <td style="text-align: right; padding-right: 5px;">12</td> <td style="text-align: center;">11</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> <tr> <td></td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td></td> </tr> </table>						5	8		3	3	5	7	12	11	2	3		3	4		M1M1depA0
	5	8																			
3	3	5	7																		
12	11	2	3																		
	3	4																			

9	Alternative method 1		
	2.14	B2	oe B1 answer of 2.1(.....) except 2.14 B1 0.214 or 21.4 or 214 or 2140
	Alternative method 2		
	Divides by 2, 2 and 3 in any order or divides by 3 and 4 in either order or divides by 2 and 6 in either order	M1	oe Attempts at all divisions must be made using a valid method
	2.14	A1	oe
	Additional Guidance		
	25.68 ÷ 2 = 12.84 25.68 ÷ 3 = 8.56 25.68 ÷ 4 = 6.42 25.68 ÷ 6 = 4.28		
	Use of remainders is B0 eg 25.68 ÷ 12 = 2 remainder 1.68		B0B0
	Do not accept rounding up to 26 or 30 or truncation to 25 eg 26 ÷ 12 = 2.1666...		B0B0
	$2\frac{7}{50}$ (possibly from multiplying numerator and denominator by 1000 and cancelling the subsequent fraction)		B2