

STANDARD FORM

Pearson Edexcel - Thursday 6 June 2019 - Paper 2 (Calculator) Foundation Tier

1.

27	(a)	5.62×10^{-3}	B1	cao	
	(b)	1452	B1	cao	

Pearson Edexcel - Thursday 8 November 2018 - Paper 2 (Calculator) Foundation Tier

2.

27	(a)	7.547×10^{-5}	B1	cao	
	(b)	34200	B1	cao	
	(c)	3.082×10^{15}	M1	for $\frac{23000 \times 6700}{0.00000005}$ OR for one calculation eg 1.541×10^8 or 154 100 000 or 4.6×10^{11} or 1.34×10^{11}	
			A1	for 3.082×10^{15} oe	Answer could be given as an ordinary number.

Pearson Edexcel - Tuesday 12 June 2018 - Paper 3 (Calculator) Foundation Tier

3.

18		2.3×10^6	M1	for 2.3×10^n where $n \neq 6$ or 23×10^5 or 2300000 or 2645000000 and 1150 seen	2300000 could be written as 2.3 million
			A1	cao	

Pearson Edexcel - Thursday 2 November 2017 - Paper 1 (Non-Calculator) Foundation Tier

4.

21		1.8×10^{-3}	M2	for $\frac{6 \times 10^{-2} \times 3 \times 10^{-4}}{1 \times 10^{-2}}$ or 18×10^{-4} or 0.0018 as the answer
			(M1)	for 6×0.0003 or 0.06×0.03 or 1.8×10^n ($n \neq -3$) or $0.000018 \div 0.01$ or rewriting one number in standard form)
			A1	cao

Pearson Edexcel - Wednesday 8 November 2017 - Paper 3 (Calculator) Foundation Tier

5.

25		0.0007452	M1	for digits 7452 seen
			A1	cao

OCR Thursday 7 June 2018 – Morning (Non Calculator) Foundation Tier

6.

13	a		$1\frac{9}{40}$	3	Mark final answer M2 for $\frac{24[k] + 25[k]}{40[k]}$ or better (k is positive integer) or M1 for two equivalent fractions with common denominator of $40[k]$ attempted with one numerator correct If 0 scored, SC1 for answer 1.225	Could be separate fractions M2 soi by $\frac{49[k]}{40[k]}$ oe Could be seen in 2 different fractions without addition
	b		4.84×10^4	3	M2 for figs 484 in final answer or B1 for 50 000 or 50×10^3 seen or for 1600 or 0.16×10^4 seen	Allow M2 if correct answer oe seen in working

OCR Monday 6 November 2017– Morning (Calculator) Foundation Tier

7.

22	a		Valid explanation	1	Such as 'because it is not in standard form'	eg because 12.3 is not a number between 1 and 10 See Appendix
	b		$450 + 7300$ $= 7750 = 7.75 \times 10^3$	M1 A1	or $0.45 \times 10^3 + 7.3 \times 10^3$ or $4.5 \times 10^2 + 73 \times 10^2$ or complete working leading to 7.75×10^3	Or correct use of a common power of 10

OCR Wednesday 8 November 2017– Morning (Calculator) Foundation Tier

8.

10	(a)		7^4	1		Condone $7^4 = 2401$ on answer line
	(b)		$\begin{matrix} \times 4 \\ 2 \times 2 \times 2 \\ [=] 2^6 \end{matrix}$	2	B1 for one line correct	
	(c)		$1.02 \times 10^3, 3 \times 10^2, 8.1 \times 10^{(1)}, 9.83 \times 10^{-2}$	1	Accept 1020, 300, 81, [0].0983	Condone error in writing 0.0983 if order correct.

9.

13	(a)		42	2	M1 for $\frac{1.47 \times 10^7}{3.5 \times 10^5}$ oe If 0 scored SC1 for figs 42 in answer	Eg. $\frac{14\,700\,000}{350\,000}$
	(b)		$4.2[3\dots] \times 10^9$	3	B2 for 4 233 600 000 oe as answer or M1 for <i>their</i> $1.47 \times 10^7 \times 288$ If 0 scored SC1 for figs 423[...] in answer	Eg. $423.[36] \times 10^7$ <i>their</i> 1.47×10^7 converted from info in (a)
	(c)	(i)	6450	3	B2 for 6447 to 6448 or M1 for $\frac{1.47 \times 10^7}{(152 \times 15)}$ oe or figs 6447 in answer	May be in stages. NB: $152 \times 15 = 2280$
		(ii)	Each machine makes the same amount of sweets. or There are no breakdowns oe or Machines running at same rate oe or All machines run for the same time oe	1		

OCR Thursday 25 May 2017 – Morning (Calculator) Foundation Tier

10.

14	(a)		5.43×10^5	1		
	(b)		[0]. 063	1		
	(c)		No, it isn't in standard form, e.g it should be $2.4[4] \times 10^5$	1		See appendix

OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

11.

5	(a)		China	1 1 AO2.3a		
	(b)		27 100 000	1 1 AO1.3a		
	(c)		7.82×10^9	2 1 AO1.2 1 AO1.3a	M1 for attempting to multiply by 1000	
	(d)		7.85×10^7	2 2 AO1.3a	M1 for 9.9 – 2.05 soi	

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

12.

Q	Answer	Mark	Comments
29(a)	3.6×10^5	B1	
	Additional Guidance		
	Do not ignore further work		
	Ignore leading/trailing zeros	eg 3.60000×10^5	B1
	Condone $10^5 \times 3.6$		B1
	$3.6 + 10^5$		B0

Q	Answer	Mark	Comments
29(b)	0.0092	B1	
	Additional Guidance		
	Do not ignore further work		
	Ignore additional zeros before the decimal point or after the 2		
	Accept .0092		B1
	0.009.2		B0

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

13.

20(a)	9.7×10^{-4}	B1	
	Additional Guidance		
	Condone $9.7 \cdot 10^{-4}$ or $9.7 \cdot 10^{-4}$		B1
	Ignore zeroes before the '9' eg 00009.7×10^{-4}		B1
	$9.7 \times 10^{4-}$		B0

20(b)	300 000 and 4000 or $(10^5 \div 10^3 =) 10^2$ or $(10^5 \div 10^3 =) 100$ or $7.5 \times 10^{(1)}$ or 75×10^0 or $\frac{3 \times 10^2}{4}$ or $\frac{300}{4}$	M1	
	75	A1	
	Additional Guidance		
	If the answer is given in standard form and as 75 the student must indicate that 75 is their chosen answer or it must be the final answer given eg1 $7.5 \times 10^{(1)} = 75$ on the answer line eg2 $75 = 7.5 \times 10^{(1)}$ on the answer line		M1A1 M1A0
	$\frac{300}{4}$ or 75 from incorrect working scores zero eg1 $3 \times 10^5 = 30\,000$ and $4 \times 10^3 = 400$ and $30\,000 \div 400 = \frac{300}{4} = 75$ eg2 $\frac{30\,000}{400} = 75$		M0A0 M0A0
	For the method mark, ignore incorrect work from a correct expression eg $0.75 \times 10^2 = 7.5 \times 10^3$		M1A0
If the student attempts two methods (simplifying the powers and attempting to convert to ordinary numbers) mark both methods and award the higher mark			

AQA Thursday 8 November 2018 – Morning (Calculator) Foundation Tier

27	2.85×10^6	B2	B1 correct value not in standard form eg 2 850 000 or 28.5×10^5 or 2.9×10^6
	Additional Guidance		
	Condone different spacing or commas eg 2850000 or 28,50,000		B1
	$2.85.10^6$		B1
	2.85×10^6 in working with 2.9×10^6 on answer line		B2
	2.85×10^6 in working with 3×10^6 on answer line		B2
	2.9×10^6 in working with 3×10^6 on answer line		B1
	3×10^6 only		B0
	2.85×10^6 in working with 2 850 000 on answer line		B1
	2 850 000 in working with 2 900 000 on answer line		B1
	2 900 000 only		B0
	$2.850\ 000$ in working with 2.8×10^6 on answer line		B1
	2.8×10^6 only		B0

AQA Thursday 24 May 2018 – Morning (Non-Calculator) Foundation Tier

15.

32	One correct conversion to a comparable form 0.08×10^{-2} or 0.0008 400×10^{-4} or 0.04 0.06×10^{-2} or 0.0006 7×10^{-2} or 700×10^{-4}	M1	
	6×10^{-4} 8×10^{-4} 4×10^{-2} 0.07 with no clearly incorrect working	A1	oe accept in converted form
	Additional Guidance		
	Correct answer from clearly incorrect working		A0
	Accept numbers with two decimal points if it is clear that the point has been moved to the correct place eg 0.0008.0 with curved lines between each place value between the decimal points		
If the numbers are converted into fractions, at least two must be given correctly with common denominators to score the first mark eg $\frac{4}{100}$ and $\frac{7}{100}$ eg $\frac{6}{1000}$ and $\frac{8}{1000}$ only eg $\frac{6}{10\,000}$ and $\frac{7}{100}$ only		M1 M0 M0	

AQA Thursday 2 November 2017 – Morning (Non-Calculator) Foundation Tier

16.

28a	1.25×10^4	B1	accept $10^4 \times 1.25$
	Additional Guidance		
	1.2×10^4 or 1.3×10^4		B0

28b	0.034	B1	accept $\frac{34}{1000}$ (oe fraction)
	Additional Guidance		
	If fraction given, ignore attempts to cancel		

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

17.

18	$6.005\ 2(00) \times 10^6$	B2	B1 for their 6 005 200 written normally and correctly converted to standard form or no number written normally and answer $6.(...) \times 10^6$
	Additional Guidance		
	(6 500 200 and) $6.500\ 2(00) \times 10^6$		B1
	65 200 and 6.52×10^4		B1
	$10^6 \times 6.005\ 2(00)$		B2
	Correct value of 6 005 200 with no conversion to standard form		B0
	6×10^6 with no number written normally		B1

AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

18.

27	9.56×3^{10} 9563 9.56×10^3 or 564 508 (.44) 9563 9560 with no incorrect evaluations seen	B2	B1 9.563×10^3 or 9560 or 564 508 (.44) or $5.6(450844) \times 10^5$ SC1 9.56×10^3 9563 9.56×3^{10} with no incorrect evaluations seen
	Additional Guidance		
	Allow numbers to be written in original or converted form or as a mixture for B2 or SC1		
	Incorrect evaluation seen scores a maximum of B1		

AQA Sample Paper 1– Morning (Non-Calculator) Foundation Tier

19.

21(a)	0.0048	B1	
21(b)	0.000 012	B1	
21(c)	2.5×10^6	B1	