IGCSE (9-1) Edexcel Past Papers

MATHEMATICS B

Paper 1, 1R

2019 — 2023

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1 – (4MB1/1_Summer_2019_Q1) – *Number*

(a) Write 8693 to 2 significant figures.

.....

(1)

(b) Write 0.0374 to 2 significant figures.

.....

(1)

2 - (4MB1/1_Summer_2019_Q2) - *Number*

Find the Lowest Common Multiple (LCM) of 18, 30 and 48
Show your working clearly.

(Total for Question is 2 marks)

3 - (4MB1/1_Summer_2019_Q4) - *Number*

Work out $2\frac{1}{4} \div 3\frac{5}{6}$

Show your working clearly and give your answer as a fraction in its simplest form.

.....

(Total for Question is 2 marks)

4 - (4MB1/1_Summer_2019_Q10) - *Number*

In a sale, the price of a book is reduced by 15%
The price of the book before the sale was £7.60

Calculate the sale price of the book.

£ .....

(Total for Question is 2 marks)

5 - (4MB1/1_Summer_2019_Q19) - *Number*

The period, T seconds, of a simple pendulum of length L metres is given by the formula

$$T = 6.28\sqrt{\frac{L}{g}}$$

$L = 1.32$ to 3 significant figures.

$g = 9.8$ to 2 significant figures.

Calculate the upper bound, to 3 significant figures, of T.

.....

(Total for Question is 4 marks)

6 - (4MB1/1R_Summer_2019_Q1) - *Number*

Find the Lowest Common Multiple (LCM) of 60 and 135
Show your working clearly.

.....

(Total for Question is 2 marks)

7 - (4MB1/1R_Summer_2019_Q7) - *Number*

Without using a calculator and showing all your working, work out

$$2\frac{3}{4} \div \frac{11}{12}$$

Give your answer in its simplest form.

.....

(Total for Question is 2 marks)

ANSWERS

1 – (4MB1/1_Summer_2019_Q1) – *Number*

(a)		8700	1	B1 oe
(b)		0.037	1	B1 oe

2 – (4MB1/1_Summer_2019_Q2) – *Number*

	$18=2\times3^2$ or $18=6\times3$ or $30=2\times3\times5$ $30=6\times5$ $48=2^4\times3$ $48=6\times8$ or **oe**			M1 Prime factors for two of 18, 30, 48 (or equivalent) **or** lists multiples of 18, 30 and 48 (at least 2 multiples, not inc number itself for all three of the numbers, ie (18),36,54, … (30),60,90, … (48),96,144,…) **or** table method
		720	2	A1

3 – (4MB1/1_Summer_2019_Q4) – *Number*

	$\frac{9}{4}\times\frac{6}{23}$ or $\frac{9}{4}\div\frac{23}{6}$			M1 Or equivalent method for dividing two fractions
	$\frac{54}{92}=\frac{27}{46}$ or $\frac{9}{2}\times\frac{3}{23}=\frac{27}{46}$ or $\frac{9}{2}\div\frac{23}{3}=\frac{27}{46}$ or $\frac{27}{12}\div\frac{46}{12}=\frac{27}{47}$ oe	$\frac{27}{46}$	2	A1 **Dependent on all working seen**

4 – (4MB1/1_Summer_2019_Q10) – *Number*

	7.60×0.85			M1 Or for working out 15% of £7.60 (=£1.14 or 114p) and taking away from £7.60 or 760. Units not needed
		£6.46	2	A1 accept 646p

5 – (4MB1/1_Summer_2019_Q19) – *Number*

	UB of 1.32 is 1.325			B1 1.325 seen implied by correct answer
	LB of 9.8 is 9.75			B1 9.75 seen implied by correct answer
	$6.28\sqrt{\frac{1.325}{9.75}}$			M1 Subst in their $L > 1.32$ and $g < 9.8$
		2.32	4	A1 awrt 2.32

6 – (4MB1/1R_Summer_2019_Q1) – *Number*

	60, 120, 180, 240, 300, 360, 420, 480, 540, ... 135, 270, 405, 540, ... **or** 60 = 2×2×3×5 or 15×2×2 135 = 3×3×3×5 or 15×3×3 **or** 5 | 60 | 135 3 | 12 | 27 4 | 9			M1 for a correct list of multiples up to 540 **or** 60 and 135 written as a correct product of primes - factors may be on ends of trees or in ladder diagrams (so expect to see 3, 3, 3, 4 and 5 or equivalent e.g. 3, 4, 5, 9) **or** correct factor grid The following is common: 5 | 60 135 3 | 12 27 4 | 4 9 9 | 1 9 1 1
		540	2	A1

7 – (4MB1/1R_Summer_2019_Q7) – *Number*

	$\frac{11}{4}\times\frac{12}{11}$ **or** $\frac{33}{12}\div\frac{11}{12}=\frac{33}{11}$			M1
	$\frac{132}{44}=3$ **or** $\frac{1}{4}\times\frac{12}{1}=\frac{12}{4}=3$ **or** $\frac{1}{1}\times\frac{3}{1}=3$ oe (cancelling of 11s and 4 and 12 seen) **or** $\frac{33}{12}\div\frac{11}{12}=\frac{33}{11}=3$ **or** $\frac{11}{4}\times\frac{12}{11}=\frac{12}{4}=3$	3	2	A1 dependent on all working seen $\frac{11}{4}\times\frac{12}{11}=3$ **or** $\frac{33}{12}\times\frac{12}{11}=3$ is A0 unless explicit cancelling seen