

TOPICAL PAST PAPER QUESTIONS WORKSHEETS

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**IGCSE International Mathematics (0607)**  
**Paper 3 [Core]**

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**Exam Series: May/June 2017 - May/June 2024**

**Format Type B:**

**Each question is followed by its answer scheme**



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# Introduction

Each Topical Past Paper Questions Workbook contains a comprehensive collection of hundreds of questions and corresponding answer schemes, presented in worksheet format. The questions are carefully arranged according to their respective chapters and topics, which align with the latest IGCSE or AS/A Level subject content. Here are the key features of these resources:

1. The workbook covers a wide range of topics, which are organized according to the latest syllabus content for Cambridge IGCSE or AS/A Level exams.
2. Each topic includes numerous questions, allowing students to practice and reinforce their understanding of key concepts and skills.
3. The questions are accompanied by detailed answer schemes, which provide clear explanations and guidance for students to improve their performance.
4. The workbook's format is user-friendly, with worksheets that are easy to read and navigate.
5. This workbook is an ideal resource for students who want to familiarize themselves with the types of questions that may appear in their exams and to develop their problem-solving and analytical skills.

Overall, Topical Past Paper Questions Workbooks are a valuable tool for students preparing for IGCSE or AS/A Level exams, providing them with the opportunity to practice and refine their knowledge and skills in a structured and comprehensive manner. To provide a clearer description of this book's specifications, here are some key details:

- Title: Cambridge IGCSE International Mathematics (0607) Paper 3 Topical Past Papers
- Subtitle: Exam Practice Worksheets With Answer Scheme
- Examination board: Cambridge Assessment International Education (CAIE)
- Subject code: 0607
- Years covered: May/June 2017 - May/June 2024
- Paper: 3
- Number of pages: 970
- Number of questions: 468



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# Chapter 1

# Number

1. 0607\_m24\_qp\_32 Q: 1

(a) (i) Write 5048 correct to the nearest 10.

..... [1]

(ii) Write 5048 correct to 2 significant figures.

..... [1]

(b)                    21    22    23    24    25    26    27    28    29

From this list of numbers, write down

(i) a multiple of 7,

..... [1]

(ii) a cube number,

..... [1]

(iii) a prime number.

..... [1]

(c) (i) Find the value of  $\sqrt[3]{3375}$ .

..... [1]

(ii)  $3 \times 3 \times 3 \times 3 \times 3 = 3^n$

Write down the value of  $n$ .

$n =$  ..... [1]

(iii) Write  $\frac{13}{20}$  as a percentage.

.....% [1]



Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	5050	1	
(a)(ii)	5000	1	
(b)(i)	21 or 28	1	
(b)(ii)	27	1	
(b)(iii)	23 or 29	1	
(c)(i)	15	1	
(c)(ii)	5	1	
(c)(iii)	65	1	

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2. 0607\_m24\_qp\_32 Q: 8

Aisha, Ben and Cressida work for a bank.

Aisha earns \$96 000, Ben earns \$120 000 and Cressida earns \$192 000.

(a) Write the ratio 96 000 : 120 000 : 192 000 in its simplest form.

..... : ..... : ..... [2]

(b) Aisha, Ben and Cressida share a bonus of \$425 000 in the ratio of their earnings.

Work out how much each person receives.

Aisha \$ .....

Ben \$ .....

Cressida \$ ..... [3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	4 : 5 : 8	2	<b>M1</b> for any correct cancelling
(b)	A 100 000 B 125 000 C 200 000	3	<b>B2</b> for one value correct or <b>M1</b> for $\frac{425000}{their(4+5+8)}$ or $\frac{425000}{their 408000}$ oe

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3. 0607\_m24\_qp\_32 Q: 11

(a) Write 180 as a product of its prime factors.

..... [2]

(b) (i) Write the value of  $180^3$  in standard form.

..... [2]

(ii) Write the value of  $\frac{1}{180^3}$  in standard form.

..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)	$2 \times 2 \times 3 \times 3 \times 5$ oe	2	<b>M1</b> for any product of factors of 180 oe or for 2, 3, 5 as final answer
(b)(i)	$5.832 \times 10^6$	2	<b>B1</b> for 5832000
(b)(ii)	$1.71 \times 10^{-7}$ or $(1.714 \text{ to } 1.715) \times 10^{-7}$	1	<b>FT</b> <i>their</i> <b>(b)(i)</b>

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4. 0607\_s24\_qp\_31 Q: 1

(a) Write fifty thousand and thirty-seven in figures.

..... [1]

(b) Write  $7\frac{2}{5}$  as a decimal.

..... [1]

(c) Change \$325 into Euros (€) when the exchange rate is \$1 = €0.88 .

€ ..... [1]

(d) Divide 3600 in the ratio 5 : 6 : 7.

....., ....., ..... [3]

(e) Write down a prime number between 18 and 24.

..... [1]

(f) The price of an e-bike is \$2200.  
In a sale, this price is reduced by 33%.

Work out the sale price of the e-bike.

\$ ..... [2]

(g) Work out the value of  $3.62 \times 10^3 + 9.1 \times 10^2$ .  
Give your answer in standard form.

..... [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)	50 037	1	
(b)	7.4 cao	1	
(c)	286	1	
(d)	1000 : 1200 : 1400	3	<b>M2</b> for $\frac{3600}{5+6+7} \times 5$ or 6 or 7 soi by 1000 or 1200 or 1400 or <b>M1</b> for $\frac{3600}{5+6+7}$ soi by 200
(e)	19 or 23	1	
(f)	1474	2	<b>B1</b> for 726 seen <b>M1</b> for $\frac{33}{100} \times 2200$ oe or $\frac{100-33}{100} \times 2200$ oe
(g)	$4.53[0] \times 10^3$ cao	2	<b>B1</b> for 4530 seen

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5. 0607\_s24\_qp\_31 Q: 3

(a) Find 16% of 385.

..... [1]

(b) Write these in order of size, starting with the smallest.

0.88      80%       $\frac{7}{8}$

..... [1]  
*smallest*

(c) Work out  $15.21^3$ .

Give your answer correct to 2 decimal places.

..... [2]

(d) Work out  $2.3^2 + \sqrt{4.7}$ .

Give your answer correct to 4 significant figures.

..... [2]

(e) Write  $\frac{15}{54}$  as a fraction in its simplest form.

..... [1]

- (f) Si Jung walks 11 km to raise money.  
She receives \$26.18 for each kilometre she walks.

Work out how much money she raises.

\$ ..... [1]

- (g) One packet of football cards cost \$21.95 .

Work out the greatest number of these packets that Josh can buy with \$100 and how much change he receives.

..... packets and \$ ..... change [3]

- (h) Work out, giving each answer as a fraction.

(i)  $\frac{2}{3} + \frac{1}{2}$

..... [1]

(ii)  $3\frac{1}{4} \times \frac{1}{26}$

..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)	61.6	1	



Question	Answer	Marks	Partial Marks
(b)	80% $\frac{7}{8}$ 0.88	1	
(c)	3518.74 cao	2	<b>B1</b> for 3518.743... or <i>their</i> answer to more than 2 decimal places correctly rounded to 2 decimal places.
(d)	7.458 cao	2	<b>B1</b> for 7.4579... or <i>their</i> answer to more than 4 significant figures correctly rounded to 4 significant figures.
(e)	$\frac{5}{18}$	1	
(f)	287.98	1	
(g)	4 and 12.2[0] change	3	<b>M1</b> for $\frac{100}{21.95}$ or 4  <b>M1</b> for $100 - \textit{their} 4 \times 21.95$ or <i>their</i> $\left(\frac{100}{21.95} - 4\right) \times 21.95$ oe
(h)(i)	$\frac{7}{6}$ or $1\frac{1}{6}$	1	
(h)(ii)	$\frac{1}{8}$ oe	1	

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6. 0607\_s24\_qp\_32 Q: 1

(a) Write the number 20 202 in words.

..... [1]

(b) Write the number 348.964

(i) correct to two decimal places

..... [1]

(ii) correct to four significant figures

..... [1]

(iii) correct to the nearest ten.

..... [1]

(c) Write  $\frac{1}{6}$ , 0.16, 17% in order of size, starting with the smallest.

....., ....., ..... [1]  
*smallest*

(d) Work out.

(i)  $\frac{3}{5} - \frac{1}{4}$

..... [1]

(ii)  $4\frac{1}{2} \times \frac{2}{3}$

..... [1]

(e) Divide \$216 in the ratio 5 : 7.

\$....., \$..... [2]

(f) Write the ratio 3600 : 2400 : 600 in its simplest form.

..... : ..... : ..... [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)	Twenty thousand two hundred [and] two	1	
(b)(i)	348.96	1	
(b)(ii)	349.0	1	
(b)(iii)	350	1	
(c)	0.16, $\frac{1}{6}$ , 17%	1	
(d)(i)	$\frac{7}{20}$	1	
(d)(ii)	3	1	
(e)	90 : 126	2	<b>B1</b> for $\frac{216}{5+7}$ soi by 18
(f)	6 : 4 : 1	2	<b>B1</b> for correct partial simplification

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7. 0607\_s24\_qp\_32 Q: 2

- (a) Levi is paid \$549 for working 36 hours.

Work out how much he is paid for each hour.

\$ ..... [1]

- (b) Levi saves \$160 each month.

Work out how much he saves in one year.

\$ ..... [1]

- (c) Levi invests \$1300 at a rate of 1.2% per year compound interest.

Calculate the value of Levi’s investment at the end of 3 years.

\$ ..... [2]

- (d) In a sale, a bicycle costing \$1340 is reduced by 30%.  
Levi buys the bicycle in the sale.

Work out how much Levi pays.

\$ ..... [2]

- (e) Levi takes part in a 40 km bicycle race.  
Levi starts the race at 09 00 and finishes at 10 15.  
All riders who cycle at a speed of 34 km/h or faster receive a medal.

Does Levi receive a medal?  
Show how you decide.

..... because ..... [3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	15.25	1	
(b)	1920	1	
(c)	1347.36	2	M1 for $1300 \times 1.012^k$ , $k > 1$
(d)	938	2	M1 for $\frac{70}{100} \times 1340$ or $\frac{30}{100} \times 1340$ soi by 402
(e)	[time =] 1 h 15 m or 1.25 h	M1	
	[speed =] $\frac{40}{\text{their time}}$ [= 32] or $\frac{40}{34}$	M1	
	No because “correct comparison of <i>their</i> 32 less than 34”. or $1.25 > 1.17$	A1	FT <i>their</i> speed and a correct comparison with 34 A1 dep on second M1  Max. 2 marks if 1.15 used

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8. 0607\_s24\_qp\_33 Q: 1

(a) Write the number 27964 in words.

.....  
..... [1]

(b) Write 27964

(i) correct to the nearest thousand

..... [1]

(ii) correct to 1 significant figure.

..... [1]

(c) Write down

(i) a multiple of 15

..... [1]

(ii) a factor of 12.

..... [1]

(d) Find the value of

(i)  $\sqrt{81}$

..... [1]

(ii)  $7^3$ .

..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)	Twenty seven thousand nine hundred [and] sixty four	1	
(b)(i)	28 000	1	
(b)(ii)	30 000	1	
(c)(i)	One of 15, 30, 45 etc.	1	
(c)(ii)	One of 1, 2, 3, 4, 6, 12	1	
(d)(i)	9	1	
(d)(ii)	343	1	

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9. 0607\_m23\_qp\_32 Q: 1

**(a)** 121 122 123 124 125 126 127

From this list, write down a number that is

**(i)** even

..... [1]

**(ii)** a square

..... [1]

**(iii)** a cube

..... [1]

**(iv)** a multiple of 7

..... [1]

**(v)** prime.

..... [1]

**(b) (i)** Find the value of  $\sqrt[3]{3.628}$ .

Give your answer correct to 3 decimal places.

..... [2]

**(ii)** Find the value of  $\frac{36.2 \times 21.4}{0.23}$ .

Give your answer correct to the nearest hundred.

..... [2]



Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	122 or 124 or 126	1	
(a)(ii)	121	1	
(a)(iii)	125	1	
(a)(iv)	126	1	
(a)(v)	127	1	
(b)(i)	1.537	2	<b>B1</b> for 1.5365... or <i>their</i> answer to more than 3 decimal places correctly rounded to 3 decimal places.
(b)(ii)	3400	2	<b>B1</b> for 3368.... or <i>their</i> answer correctly rounded to the nearest hundred.

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10. 0607\_m23\_qp\_32 Q: 3

In 2019 the Louvre museum had 9 609 900 visitors.

(a) Write 9 609 900 in words.

.....  
..... [1]

(b) The Louvre museum is open 309 days of the year.

Work out the average number of visitors per day.

..... [1]

(c) 40% of all visitors are admitted free.

(i) Write down the percentage of visitors who have to pay.

.....% [1]

(ii) The admission price is 15 euros (€).

Work out how much money, on average, was paid to the Louvre museum each day for admissions.

€ ..... [3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	Nine million, six hundred [and] nine thousand, nine hundred	1	
(b)	31 100	1	
(c)(i)	60 cao	1	
(c)(ii)	279 900	3	<b>M2</b> for $\frac{\text{their}60}{100} \times \text{their} 31100 \times 15$ oe or <b>M1</b> for $\frac{\text{their}60}{100} \times \text{their} 31100$ or $15 \times \text{their} 31100$ oe

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11. 0607\_m23\_qp\_32 Q: 4

(a) Prija changes 600 pounds (£) to US dollars (\$) at a bank.

(i) The bank charges 2% of the £600 to change the money.

Show that the bank charges £12.

[1]

(ii) The bank takes the £12 charge and then changes the rest of the money.  
The exchange rate is  $\text{£}1 = \$1.335$ .

Work out how much money, in \$, Prija receives.

\$ ..... [2]

(b) From the money Prija receives, she spends \$150 on food, \$225 on entertainment and \$130 on gifts.

Work out how much, in \$, Prija has left.

\$ ..... [2]

(c) Prija changes the remaining dollars back to pounds at a rate of  $\text{£}1 = \$1.347$ .  
The bank does not charge to make the change.

Work out how much money, in £, she receives.

£ ..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	$\frac{2}{100} \times 600$	1	or an equivalent method
(a)(ii)	784.98	2	<b>M1</b> for 600 – 12 soi by 588
Question	Answer	Marks	Partial Marks
(b)	279.98	2	<b>FT</b> <i>their(a)(ii)</i> – 505 <b>M1</b> for 150 + 225 + 130 soi by 505
(c)	207.85	1	<b>FT</b> $\frac{\textit{their(b)}}{1.347}$

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12. 0607\_s23\_qp\_31 Q: 2

(a) Tilda and Kim sell bottles of salad dressing.

At the beginning of Monday, they have 200 bottles of salad dressing for sale.  
During Monday, Tilda sells half of the 200 bottles and Kim sells 10% of the 200 bottles.

Work out how many of the 200 bottles are left at the end of Monday.

..... [3]

(b) A bottle of salad dressing costs \$3.25 .

Work out the greatest number of bottles of salad dressing that can be bought with \$20 and how much change there is.

..... bottles with \$ ..... change [3]

- (c) Salad dressing is made by mixing oil and vinegar in this ratio.

$$\text{oil} : \text{vinegar} = 5 : 3$$

Work out how much oil and how much vinegar is needed to make 1 litre of salad dressing.  
Give your answers in millilitres.

Oil ..... ml

Vinegar ..... ml  
[3]

- (d) Kim invests \$5000 at 4% per year simple interest.

Work out how much the investment is worth at the end of 3 years.

\$ ..... [3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	80	3	<b>B1</b> for 100 <b>B1</b> for 20
(b)	6 with 0.5[0] change	3	<b>M1</b> for $20 \div 3.25$ oe <b>A1</b> for 6 If 0 scored, <b>SC1</b> for number of bottles less than 6 with correct change
(c)	[oil =] 625 [vinegar =] 375	3	<b>B1</b> for 1000 soi <b>M1</b> for $\frac{their1000}{5+3}$ soi by figs125
(d)	5600	3	<b>B2</b> for 600 or <b>M2</b> for $\frac{5000 \times 4 \times 3}{100} + 500$ or <b>M1</b> for $\frac{5000 \times 4 \times [3]}{100}$

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13. 0607\_s23\_qp\_31 Q: 5

**(a)** Write these decimals in order of size, starting with the smallest.

0.6      0.63      0.069      0.608

..... [2]  
*smallest*

**(b)** Find the value of  $\sqrt{29}$ .

Write your answer correct to 3 significant figures.

..... [2]

**(c) (i)** Write 0.000035 in standard form.

..... [1]

**(ii)** Work out  $\frac{4 \times 10^6}{8 \times 10^{-2}}$ .

Give your answer in standard form.

..... [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)	0.069 0.6 0.608 0.63	2	<b>B1</b> for three in correct order when one is covered up
(b)	5.39 cao	2	<b>B1</b> for 5.385[1...] or for <i>their</i> answer to more than 3sf correctly rounded to 3sf
(c)(i)	$3.5 \times 10^{-5}$ cao	1	
(c)(ii)	$5.[0] \times 10^7$ cao	2	<b>B1</b> for 50 000 000 or $0.5 \times 10^8$

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14. 0607\_s23\_qp\_32 Q: 1

**(a)** Show that, in a year of 365 days, there are 31 536 000 seconds.

[2]

**(b) (i)** Write 31 536 000 in words.

.....

..... [1]

**(ii)** Write 31 536 000 in standard form.

..... [1]

**(c)** Write down all the factors of 49.

..... [2]

**(d)** Write  $\frac{1}{4}$  as a percentage.

..... % [1]

**(e)** Find  $\sqrt{604}$ .

Give your answer correct to 3 decimal places.

..... [2]

**(f)** Work out  $4.85 - 3.26 \times 2.31$ .

Give your answer correct to 4 significant figures.

..... [2]

**(g)** Write these numbers in order of size, starting with the smallest.

5.6    5.56    5.06    5.65

..... [2]  
*smallest*

Answer:

Question	Answer	Marks	Partial Marks
(a)	$365 \times 24 \times 60 \times 60 [=] 31536000$	<b>M2</b>	<b>M1</b> for $[365 \times] 24 \times 60$ or $[365 \times] 60 \times 60$
(b)(i)	Thirty-one million, five hundred [and] thirty-six thousand	<b>1</b>	
(b)(ii)	$3.15[36] \times 10^7$	<b>1</b>	
(c)	1, 7, 49	<b>2</b>	<b>B1</b> for 2 correct factors and no extras or for 3 correct and 1 extra
(d)	25	<b>1</b>	
(e)	24.576	<b>2</b>	<b>M1</b> for 24.5764... or for <i>their</i> answer to more than 3dp correctly rounded to 3dp.
(f)	-2.681	<b>2</b>	<b>M1</b> for $[-]2.680[6]$ or for <i>their</i> answer to more than 4sf correctly rounded to 4sf
(g)	5.06 5.56 5.6 5.65	<b>2</b>	<b>B1</b> for 3 correct when one is covered up

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15. 0607\_s23\_qp\_32 Q: 3

- (a) Petrol costs \$0.76 per litre.

Work out the amount of petrol that can be bought with \$10.

..... litres [2]

- (b) Company A and Company B have cars to rent.  
Company A charges \$50 for the first day and \$28 for each additional day.

- (i) Find the cost of renting a car from Company A for 4 days.

\$ ..... [2]

- (ii) Company B charges \$200 to rent a car for a week.  
Selma wants to rent a car for 2 weeks.

Work out whether Company A or Company B is cheaper for Selma.  
You must show all your working.

[3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	13.1 to 13.2	2	M1 for $\frac{10}{0.76}$ oe
(b)(i)	134	2	M1 for $[50+]3 \times 28$
(b)(ii)	Company A: $50 + 13 \times 28 = 414$	M1	
	Company B: $2 \times 200 = 400$	M1	
	Company B clearly indicated as cheapest	A1	Dep on at least M1 If 0 scored, SC1 for <i>their</i> correct conclusion after seeing a price for <i>A</i> and <i>B</i>

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16. 0607\_s23\_qp\_33 Q: 1

**(a)** Work out.

**(i)**  $\frac{2}{3} \times \frac{2}{5}$

..... [1]

**(ii)**  $5^3 - 2^4$

..... [2]

**(b)** Write 80 as a product of its prime factors.

..... [2]

**(c)** Work out  $450000000 - 5.8 \times 10^7$ .  
Give your answer in standard form.

..... [2]

**(d)** Write  $3.9 \times 10^{-4}$  as an ordinary number.

..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	$\frac{4}{15}$ oe	1	
(a)(ii)	109	2	<b>B1</b> for 125 or 16
(b)	$2 \times 2 \times 2 \times 2 \times 5$ or $2^4 \times 5$	2	<b>M1</b> for repeated division of 80 or for 2 and 5 seen as factors
(c)	$4.44 \times 10^9$ or $4.442 \times 10^9$	2	<b>B1</b> for 4442000000
(d)	0.00039	1	

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17. 0607\_s23\_qp\_33 Q: 8

- (a) Atif and Faiza share \$5000 in this ratio.

$$\text{Atif : Faiza} = 3 : 7$$

Work out how much they each receive.

Atif \$ .....

Faiza \$ ..... [2]

- (b) Atif earns \$2200 each month.

Each month he gives  $\frac{1}{8}$  of his earnings to charity.

Work out how much Atif has left each month after giving to charity.

\$ ..... [2]

- (c) Faiza gives \$40 to charity each month.  
She increases this amount by 14%.

Work out how much Faiza now gives to charity each month.

\$ ..... [2]



Answer:

Question	Answer	Marks	Partial Marks
(a)	[Atif=] 1500 [Faiza=] 3500	2	<b>M1</b> for $\frac{5000}{3+7}$ soi by 500
(b)	1925	2	<b>B1</b> for 275
(c)	45.6[0]	2	<b>M1</b> for $40 \times 0.14$ oe soi by 5.6[0]

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18. 0607\_w23\_qp\_31 Q: 4

- (a) The Monaco Grand Prix is a car race.  
The cars race around a circuit.  
The length of one circuit is 3.337 kilometres.  
The drivers each complete 78 circuits in the race.

(i) Work out the total distance of the race.

..... km [1]

(ii) One driver completes one circuit at an average speed of 162 km/h.

Find the time taken.

Give your answer in minutes and seconds.

..... min ..... s [3]

(b) One car reaches a speed of 290 km/h.

Change 290 km/h to m/s.

..... m/s [2]

(c) The cost of entry to watch the race was \$450.  
The total amount collected was \$90 million.

Work out the number of people who paid to watch the race.

..... [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	260.286	1	
(a)(ii)	1 [min] 14 [s]	3	<p><b>M2</b> for <math>\frac{3.337 \times 60 \times 60}{162}</math> soi by 74.155...</p> <p>or <b>M1</b> for <math>\frac{3.337}{162}</math> soi by 0.02059 ...</p> <p>If 0 scored, <b>SC1</b> for <i>their</i> time greater than 60s converted correctly to minutes and seconds</p>
(b)	80.6 or 80.55...	2	<b>M1</b> for $290 \times 1000$ or $290 \div 3600$
(c)	200 000	2	<b>M1</b> for $\frac{\text{figs}9}{450}$

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19. 0607\_w23\_qp\_32 Q: 2

(a) (i) Write 17 852 in words.

.....  
 ..... [1]

(ii) Write 17 852 correct to the nearest 100.

..... [1]

(iii) Write 17 852 correct to 2 significant figures.

..... [1]

(b) (i) Write down a multiple of 10.

..... [1]

(ii) Write down a factor of 20.

..... [1]

(iii) Write down a prime number between 10 and 20.

..... [1]

(c) Find the value of

(i)  $6^2$

..... [1]

(ii)  $4^5$ .

..... [1]

(d) (i) Find the value of  $n$  when  $\frac{3}{10} = \frac{n}{30}$ .

$n =$  ..... [1]

(ii) Write these fractions in order of size, starting with the smallest.

$$\frac{2}{5} \quad \frac{1}{3} \quad \frac{11}{30} \quad \frac{3}{10}$$

..... [2]  
*smallest*

(e) Work out the following, giving your answers as fractions.

(i)  $\frac{2}{5} - \frac{1}{3}$

..... [1]

(ii)  $1\frac{1}{2} \times \frac{11}{30}$

..... [1]

Answer:

Question	Answer	Marks	Partial Marks
(a)(i)	Seventeen thousand eight hundred [and] fifty two	1	
(a)(ii)	17 900	1	
(a)(iii)	18 000	1	
(b)(i)	One of 10, 20, 30, 40, etc	1	
(b)(ii)	One of 1, 2, 4, 5, 10, 20	1	
(b)(iii)	One of 11, 13, 17, 19	1	
(c)(i)	36	1	
(c)(ii)	1024	1	
(d)(i)	9	1	
(d)(ii)	$\frac{3}{10} \frac{1}{3} \frac{11}{30} \frac{2}{5}$	2	M1 for correct order with one misplaced
(e)(i)	$\frac{1}{15}$ oe fraction	1	
(e)(ii)	$\frac{11}{20}$ oe fraction	1	

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20. 0607\_m22\_qp\_32 Q: 6

In a school there are 960 students.  
540 of the students are girls.

(a) Write the ratio girls : boys in its simplest form.

..... : ..... [3]

(b) Two thirds of the 540 girls and 45% of the boys travel to school by bus.

Work out how many **more** girls than boys travel to school by bus.

..... [3]

Answer:

Question	Answer	Marks	Partial Marks
(a)	9 : 7	3	<b>B1</b> for [boys=]420 <b>M1</b> for 540 : <i>their</i> (960 – 540) or <i>their</i> (960 – 540) : 540 cancelled correctly at least once If 0 scored, <b>SC1</b> for 9 : 16
(b)	171	3	<b>M1</b> for $\frac{2 \times 540}{3}$ oe <b>M1</b> for $0.45 \times \textit{their}$ 420 oe

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21. 0607\_s22\_qp\_31 Q: 1

(a) Write the number 20 202 in words.

..... [1]

(b) Work out.

$$\frac{6.27 + 2.48}{1.75}$$

..... [1]

(c) Write down all the factors of 42.

..... [2]

(d) Write down a prime number between 15 and 20.

..... [1]

(e) Write 7832.948

(i) correct to 2 decimal places,

..... [1]

(ii) correct to 4 significant figures,

..... [1]

(iii) correct to the nearest 100.

..... [1]

(f) Insert the symbols  $()$ ,  $+$ ,  $-$ ,  $\times$  so that the following statement is correct.

$$5 \quad 3 \quad 4 \quad 1 = 9 \quad [1]$$

(g) Jeffrey invests \$550 for 3 years at a rate of 3.2% per year simple interest.

Work out the interest he receives.

\$ ..... [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)	Twenty thousand, two hundred [and] two	1	
(b)	5	1	
(c)	1, 2, 3, 6, 7, 14, 21, 42	2	<b>B1</b> for 4 to 7 correct factors with no incorrect or 8 correct factors with one extra
(d)	17 or 19	1	
(e)(i)	7832.95	1	
(e)(ii)	7833	1	
(e)(iii)	7800	1	
(f)	$(5 - 3) \times 4 + 1 = 9$	1	
(g)	52.8[0]	2	<b>M1</b> for $550 \times \frac{3.2}{100}$ [×3] implied by 17.6[0]

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22. 0607\_s22\_qp\_31 Q: 12

Ruben's house is 1.3 km from the supermarket.

- (a) He walks to the supermarket at a speed of 5 km/h.

Work out how long it takes him.

Give your answer in minutes and seconds.

..... min ..... s [3]

- (b) On another day, Ruben cycles to the supermarket in a time of 5 minutes 12 seconds.

- (i) Show that 12 seconds = 0.2 minutes.

[1]

- (ii) Work out Ruben's average speed when cycling to the supermarket.  
Give your answer in km/h.

..... km/h [2]

Answer:

Question	Answer	Marks	Partial Marks
(a)	15 [min] 36 [sec]	<b>3</b>	<b>M2</b> for $\frac{1.3}{5} \times 60$ oe, soi by 15.6 or <b>M1</b> for $\frac{1.3}{5}$ soi by 0.26
(b)(i)	$\frac{12}{60} = 0.2$	<b>1</b>	
(b)(ii)	15	<b>2</b>	<b>M1</b> for $\frac{1.3}{5.2}$ soi by 0.25 or $\frac{5.2}{60}$ soi by 0.0866... oe

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