Edexcel IGCSE Mathematics A (4MA1)

[Paper 1F]

Exam Series: January 2018 - January 2023

Format Type A:
Answers to all questions are provided as an appendix

Introduction

Each Topical Past Paper Questions Compilation 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 Edexcel 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 Edexcel IGCSE or 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 Edexcel IGCSE or 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: Edexcel International GCSE Mathematics (4MA1) Paper 1F Topical Past Papers

- Subtitle: Exam Practice Worksheets With Answer Scheme

- Examination board: Pearson Edexcel

- Subject code: 4MA1

- Years covered: January 2018 - January 2023

- Paper: 1F

- Number of pages: 731

- Number of questions: 553

Contents

Chapter 1

Numbers and the number system

1.1 Integers

1. 4ma1_1f_que_20230111 Q: 1

The table gives information about six plays written by William Shakespeare.

Play	Number of words	Year written
The Taming of the Shrew	21 055	1592
Henry V	26 119	1599
Hamlet	30 557	1602
Macbeth	17 121	1606
Julius Caesar	19 703	1599
King John	20 772	1596

(a) Which of these six plays has the greatest number of words?

....

(1)

Two of these six plays were written in the same year.

(b) Write down the name of each of these plays.

.... and ....

(1)

The play Othello has 9329 more words in it than the play Macbeth.

(c) Work out the number of words in the play Othello.

....

(1)

(d) Write the number 21 055 in words.

....

(1)

(Total for Question 1 is 4 marks)

2. 4MA1_1F_que_20220111 Q: 1

The table shows the average annual rainfall, in mm, for each of five countries.

Country	Average annual rainfall (mm)
Colombia	3240
Jamaica	2051
Brazil	1761
Japan	1668
France	867

(a) Write the number 2051 in words.

....

(1)

(b) Write the number 1668 correct to the nearest hundred.

....

(1)

The average annual rainfall for Colombia is more than the average annual rainfall for Brazil.

(c) How much more?

.... mm

(1)

The average annual rainfall for Nigeria was 283 mm more than the average annual rainfall for France.

(d) Work out the average annual rainfall for Nigeria.

.... mm

(1)

(Total for Question 1 is 4 marks)

3. 4MA1_1F_que_20220111 Q: 20

Jenny has six cards.

Each card has a whole number written on it so that

> the smallest number is 5
> the largest number is 24
> the median of the six numbers is 14
> the mode of the six numbers is 8

Jenny arranges her cards so that the numbers are in order of size.

(a) For the remaining four cards, write on each dotted line a number that could be on the card.

(3)

A basketball team plays 6 games.
After playing 5 games, the team has a mean score of 21 points per game.
After playing 6 games, the team has a mean score of 23 points per game.

(b) Work out the number of points the team scored in its 6th game.

....

(3)

(Total for Question 20 is 6 marks)

4. 4ma1_1f_que_20220521 Q: 1

Nav found the following table that shows the age, in years, of each of seven cities.

City	Age (years)
Cadiz	3124
Suzhou	2534
Jenin	4469
Istanbul	2704
Nanjing	2516
Gaziantep	5669
Alexandria	2351

(a) Write down the name of the city with the greatest age.

....

(1)

(b) Write the number 2534 in words.

....

(1)

(c) Write the number 2351 correct to the nearest ten.

....

(1)

(d) Work out the difference between the age of Cadiz and the age of Nanjing.

.... years

(1)

A millennium is 1000 years.

(e) What is the age of Jenin in whole millenniums?

.... millenniums

(1)

(Total for Question 1 is 5 marks)

5. 4MA1_1FR_que_20220111 Q: 1

| 10 | 15 | 23 | 25 | 27 | 28 | 33 | 35 |

(a) From the numbers in the box, write down

   (i) an even number

....

   (ii) a multiple of 9

....

   (iii) a prime number

....

(3)

Here are four cards.
Each card has a number on it.
The four cards are arranged to make the number 7358

| 7 | 3 | 5 | 8 |

(b) (i) Show how the four cards can be arranged to make the smallest number using all
      four cards.

☐ ☐ ☐ ☐

   (ii) Show how the four cards can be arranged to make a correct calculation below.

$$\boxed{}\,\boxed{} + \boxed{}\,\boxed{} = 95$$

(2)

(Total for Question 1 is 5 marks)

6. 4ma1_1fr_que_20220521 Q: 1

Here are four cards.
Each card has a number written on it.
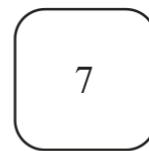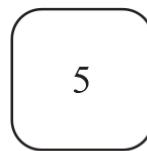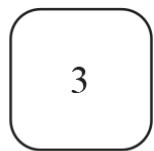
| 3 | 4 | 5 | 7 |

These four cards are arranged to make the number 3457

(a) Arrange the four cards to make the largest possible even number.

| | | | |
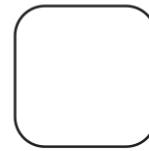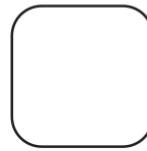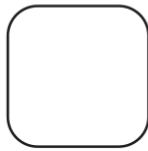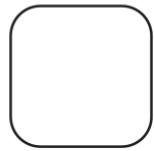
(1)

Darren arranges the cards to make another number.

The difference between the number 3600 and the number that Darren makes is as small as possible.

(b) Find this difference.

....

(2)

(Total for Question 1 is 3 marks)

7. 4ma1_1fr_que_20220521 Q: 8

Masie is told that $13\,203 \div 27 = 489$

Explain how she can use this calculation to work out 489×28

....

....

....

(Total for Question 8 is 2 marks)

8. 4MA1_1F_que_20210304 Q: 1

The table shows the height, in metres, of each of seven volcanoes.

Volcano	Height (metres)
Acamarachi	6046
Bazman	3490
Dona Juana	4150
Kamen	4585
Mount Ararat	5137
Ojos del Salado	6893
Semeru	3676

(a) Which of these volcanoes has the greatest height?

....

(1)

(b) Write down the value of the 8 in the number 4585

....

(1)

(c) Write the number 6046 in words.

....

(1)

(d) Write the number 5137 correct to the nearest hundred.

....

(1)

(e) Work out the difference in the height of the Acamarachi volcano and the height of the Semeru volcano.

.... metres

(1)

(Total for Question 1 is 5 marks)

9. 4MA1_1F_que_20211103 Q: 4

The table shows the temperatures recorded at midnight and at midday for each of five North American cities on a Monday one week.

City	Midnight temperature (°C)	Midday temperature (°C)
Boston	− 2	14
Houston	11	20
Chicago	− 8	7
Detroit	− 7	− 1
New York	0	12

(a) Which city had the lowest midnight temperature?

....

(1)

(b) Find the difference between the midnight temperature and midday temperature for Boston.

....°C

(1)

From Monday to Thursday, the midday temperature in Detroit increased by 2°C each day.

(c) Work out the midday temperature in Detroit on Thursday.

....°C

(2)

(Total for Question 4 is 4 marks)

10. 4MA1_1FR_que_20210304 Q: 1

The table shows the heights, in metres, of five mountains.

Mountain	Height (metres)
Aconcagua	6961
Makalu	8485
Kilimanjaro	5895
Mont Blanc	4810
Puncak Jaya	4884

(a) Which of these mountains has the greatest height?

....

(1)

(b) Write the number 5895 in words.

....

(1)

(c) Write down the value of the 8 in 4810

....

(1)

(d) Work out the difference between the height of Aconcagua and the height of Puncak Jaya.

.... metres

(1)

(Total for Question 1 is 4 marks)

11. 4MA1_1F_que_20200305 Q: 1

The table shows the land area, in km², of each of six African countries.

Country	Land area (km²)
Botswana	566 730
Kenya	569 140
Namibia	823 290
Somalia	627 340
Tanzania	885 800
Zambia	743 390

(a) Write down the name of the country with the greatest land area.

....

(1)

(b) Write 823 290 correct to the nearest thousand.

....

(1)

(c) Work out the difference between the land area of Botswana and the land area of Kenya.

.... km²

(1)

The land area of the Gambia is 10 120 km²

(d) Write the number 10 120 in words.

....

....

(1)

(Total for Question 1 is 4 marks)

12. 4MA1_1F_que_20201104 Q: 1

The table gives information about the amount of crude oil, in barrels, produced per day
by each of six countries in 2015

Country	Crude oil produced per day (number of barrels)
Australia	322 300
Congo	269 000
Gabon	213 300
South Sudan	220 000
Thailand	248 200
Vietnam	333 400

(a) Write down the name of the country that produced the least number of barrels of
crude oil.

....

(1)

(b) Work out the difference between the number of barrels of crude oil produced by
Vietnam and the number of barrels of crude oil produced by Australia.

....barrels

(1)

Thailand produced 248 200 barrels of crude oil.

(c) Write 248 200 correct to the nearest thousand.

...

(1)

(Total for Question 1 is 3 marks)

13. 4MA1_1FR_que_20200305 Q: 1

| 3 | 2 | 6 | 8 |

(a) Write down the largest possible four digit number using all the digits that are
    in the box.

....

(1)

```
        17
   24
        1
            27
   20
       9
           15
     8
```
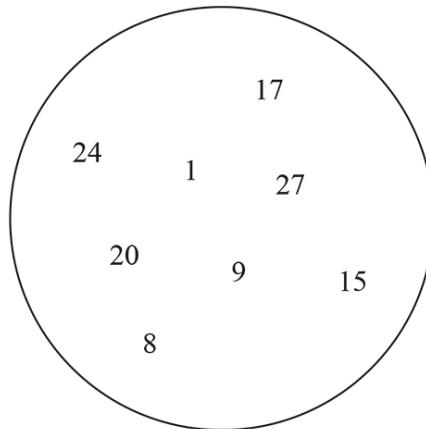
From the numbers in the circle, write down

(b) a multiple of 6

....

(1)

(c) a prime number

....

(1)

(Total for Question 1 is 3 marks)

14. 4MA0_1F_que_20190110 Q: 1

The table gives information about the population, to the nearest thousand, of each of six capital cities in 2012

Capital city	Population
Bangkok	8 249 000
Hanoi	3 399 000
London	8 174 000
Madrid	3 234 000
Nairobi	2 666 000
Rome	2 793 000

(a) Which of these capital cities had the least population in 2012?

(1)

(b) Write down the value of the 8 in the number 8 249 000

(1)

(c) Work out the difference between 2 793 000 and 2 666 000

(1)

In 2012 the population of Washington DC was 601 723

(d) Write 601 723 correct to the nearest thousand.

(1)

(Total for Question 1 is 4 marks)

15. 4MA1_1FR_que_20190522 Q: 1

(a) Write a number in each box so that each calculation is correct.

(i) [   ] + 357 = 486

(ii) [   ] × 23 = 1840

(2)

Here are four cards.
Each card has a number on it.
The four cards are arranged to make the number 2745

| 2 | 7 | 4 | 5 |

(b) (i) Show how the cards can be arranged to make the smallest number using all four cards.

( ) ( ) ( ) ( )

(ii) Show how the cards can be arranged to make an even number using all four cards.

( ) ( ) ( ) ( )

(2)

(Total for Question 1 is 4 marks)

16. 4MA0_1FR_que_20180108 Q: 1

(a) Write the number **eight thousand and twenty four** in figures.

....
(1)

Here are some numbers.

       38   5043   623   540

(b) Write these numbers in order of size.
      Start with the smallest number.

....
(1)

There were 76 385 spectators at the 2015 football Asian Cup Final.

(c) (i) Write down the value of the 3 in the number 76 385

....
      (ii) Write the number 76 385 correct to the nearest 1000

....
(2)

(Total for Question 1 is 4 marks)

17. 4MA0_1FR_que_20180108 Q: 6

The lowest temperature ever recorded in Saudi Arabia is −11°C.
The highest temperature ever recorded in Saudi Arabia is 51°C.

Work out the difference between these two temperatures.

.... °C

(Total for Question 6 is 2 marks)

18. 4MA0_1FR_que_20180525 Q: 8

(a) Work out (–9) – (–15)

....

(b) Work out 6 × (–8)

....

(1)

(c) Work out (–64) ÷ (–4)

....

(1)

(Total for Question 8 is 3 marks)

19. 4MA1_1FR_que_20180525 Q: 1

The table gives information about the weights, in kilograms, of five animals.

Animal	Weight in kilograms
African buffalo	725
Indian elephant	3178
Giraffe	800
Pilot whale	2205
Walrus	1013

(a) Which animal has the least weight?

....

(1)

(b) Write down the value of the 1 in the number 3178

....

(1)

(c) Work out the difference between 2205 and 1013

....

(1)

The weight of a blue whale is 20 times the weight of the giraffe.

(d) Work out the weight of the blue whale.
    Give your answer in tonnes.
    1 tonne = 1000 kg

.... tonn

(2)

(Total for Question 1 is 5 marks)

20. 4MA1_1FR_que_20180525 Q: 9

The table shows the temperatures at midnight and at midday at five ski resorts.

Ski resort	Temperature at midnight (°C)	Temperature at midday (°C)
Chamonix	−5	3
Alto Campoo	−8	−2
Javornik	−5	−4
La Parva	−2	−2
Asiago	−7	0

(a) Which ski resort had the lowest temperature at midnight?

....
(1)

(b) Work out the increase in temperature from midnight to midday for Chamonix.

.... °C
(1)

Jan knows that the temperature falls by 1 °C for every 300 m increase in height above Asiago.

(c) What was the temperature at midnight at a height 1800 m above Asiago?

.... °C
(2)

(Total for Question 9 is 4 marks)

1.2 Fractions

Appendix A

Answers

1. 4ma1_1f_rms_20230111 Q: 1

International GCSE Maths				
Apart from Questions 8, 12a, 12b, 15, 17 and 18 (where the mark scheme states otherwise), the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method.				
Q	**Working**	**Answer**	**Mark**	**Notes**
(a)		Hamlet	1	B1
(b)		Henry V and Julius Caesar	1	B1
(c)		26 450	1	B1
(d)		Twenty one thousand and fifty five	1	B1
				Total 4 marks

——————————— compiled by examinent.com ———————————

2. 4MA1_1F_rms_20220111 Q: 1

International GCSE Maths				
Apart from question 9c, 13, 21b the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method				
Q	**Working**	**Answer**	**Mark**	**Notes**
(a)		Two thousand and fifty one	1	B1
(b)		1700	1	B1
(c)		1479	1	B1
(d)		1150	1	B1
				Total 4 marks

——————————— compiled by examinent.com ———————————

3. 4MA1_1F_rms_20220111 Q: 20

Q	Working	Answer	Mark	Notes	
(a)		(5), 8, 8, 20, x, (24)	3	B3	for (5), 8, 8, 20, x, (24) where $x = 21$ **or** 22 **or** 23
				(B2	for (5), 8, 8, 20, x, (24) where x is blank or **any** value other than 21, 22 or 23)
				(B1	for a list with a median of 14 **or** a mode of 8 **or** the 3rd and 4th cards having a sum of 28 (ignoring other cards))
(b)	eg 5 × 21 (= 105) **or** 6 × 23 (= 138)		3	M1	
	eg 6 × 23 − 5 × 21			M1	
		33		A1	
					Total 6 marks

_____ compiled by examinent.com _____

4. 4ma1_1f_rms_20220521 Q: 1

Q	Working	Answer	Mark	Notes
(a)		Gazientep	1	B1
(b)		Two thousand, five hundred and thirty four	1	B1
(c)		2350	1	B1 cao
(d)		608	1	B1 Accept −608
(e)		4	1	B1 cao
				Total 5 marks

_____ compiled by examinent.com _____

5. 4MA1_1FR_rms_20220111 Q: 1

International GCSE Maths					
Apart from Questions 5b and 24 the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method					
Q	Working	Answer	Mark	Notes	
(a)(i)		10 or 28	1	B1	accept 10 **or** 28 **or** 10 and 28
(ii)		27	1	B1	
(iii)		23	1	B1	
(b)(i)		3578	1	B1	
(ii)		57 + 38 **or** 37 + 58	1	B1	
					Total 5 marks

_____ compiled by examinent.com _____

6. 4ma1_1fr_rms_20220521 Q: 1

Q	Working	Answer	Mark	Notes	
(a)		7534	1	B1	
(b)	eg 3600 − 3574 **or** 3745 − 3600		2	M1	for 3600 – "number" or "number" – 3600 where "number" contains the digits 3,4,5,7. Must have attempted to evaluate this calculation
		26		A1	cao
					Total 3 marks

_____ compiled by examinent.com _____

7. 4ma1_1fr_rms_20220521 Q: 8

Q	Working	Answer	Mark	Notes
		add 489 to 13 203	2	B2 oe eg accept 489 + 13 203
				(B1 for sight of 489 × 27 = 13 203)
				Total 2 marks

——————————— compiled by examinent.com ———————————

8. 4MA1_1F_rms_20210304 Q: 1

International GCSE Maths				
Apart from questions 16, 21b, 25bii (where the mark scheme states otherwise) the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method				
Q	Working	Answer	Mark	Notes
(a)		Ojos del Salado	1	B1
(b)		8 tens	1	B1 accept 80, tens
(c)		Six thousand and forty six	1	B1 cao
(d)		5100	1	B1 cao
(e)		2370	1	B1 accept −2370
				Total 5 marks

——————————— compiled by examinent.com ———————————

9. 4MA1_1F_rms_20211103 Q: 4

Q	Working	Answer	Mark	Notes
(a)		Chicago	1	B1 Accept misspellings
(b)		16	1	B1 accept −16
(c)	−1+2×3		2	M1 for clearly adding 3 lots of 2 or the sequence − 1, 1, 3, 5
		5		A1
				Total 4 marks

——————————— compiled by examinent.com ———————————

10. 4MA1_1FR_rms_20210304 Q: 1

International GCSE Maths				
Apart from questions 15c, 17, 25 (where the mark scheme states otherwise) the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method				
Q	Working	Answer	Mark	Notes
a		Makalu	1	B1 Accept 8485
b		Five thousand eight hundred and ninety five	1	B1
c		800	1	B1 Accept 8 (eight) hundreds, hundreds, 100('s),
d		2077	1	B1 Accept −2077
				Total 4 marks

——————————— compiled by examinent.com ———————————

11. 4MA1_1F_rms_20200305 Q: 1

Question	Working	Answer	Mark	Notes
(a)		Tanzania	1	B1
(b)		823 000	1	B1
(c)		2410	1	B1 accept −2410
(d)		ten thousand one hundred and twenty	1	B1
				Total 4 marks

——————————— compiled by examinent.com ———————————

12. 4MA1_1F_rms_20201104 Q: 1

Q	Working	Answer	Mark	Notes
International GCSE Maths				
Apart from questions 20(a) (where the mark scheme states otherwise) the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method				
(a)		Gabon	1	B1
(b)		11 100	1	B1 accept −11 100
(c)		248 000	1	B1
				Total 3 marks

_____   compiled by examinent.com   _____

13. 4MA1_1FR_rms_20200305 Q: 1

Q	Working	Answer	Mark	Notes
International GCSE Maths				
Apart from questions 15, 17b, 20, 24 (where the mark scheme states otherwise) the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method				
a		8632	1	B1 cao
b		24	1	B1 cao
c		17	1	B1 cao
				Total 3 marks

_____   compiled by examinent.com   _____

14. 4MA0_1F_rms_20190110 Q: 1

Question	Working	Answer	Mark	Notes
Apart from Question 18b where the mark scheme states otherwise, the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method.				
(a)		Nairobi	1	B1
(b)		8 million	1	B1
(c)		127 000	1	B1 accept −127 000
(d)		602 000	1	B1

_____   compiled by examinent.com   _____

15. 4MA1_1FR_rms_20190522 Q: 1

Question	Working	Answer	Mark	Notes
International GCSE Maths				
Apart from question 2d, 18b, 23 (where the mark scheme states otherwise) the correct answer, unless clearly obtained from an incorrect method, should be taken to imply a correct method.				
(a) (i)		129	1	B1
(a)(ii)		80	1	B1
(b)(i)		2457	1	B1
(b)(ii)		_ _ _ 4 or _ _ _ 2	1	B1 4 cards arranged with the 4 or 2 at the end
				Total 4 marks

_____   compiled by examinent.com   _____

16. 4MA0_1FR_rms_20180108 Q: 1

Question	Working	Answer	Mark	Notes
(a)		8024	1	B1
(b)		38, 540, 623, 5043	1	B1
(c)(i)		300	2	B1
(ii)		76000		B1

compiled by examinent.com

17. 4MA0_1FR_rms_20180108 Q: 6

Q	Working	Answer	Mark	Notes
	$51 - -11$ or $51 + 11$ or $-11 - 51$	62	2	M1 A1 (accept -62)

compiled by examinent.com

18. 4MA0_1FR_rms_20180525 Q: 8

Q	Working	Answer	Mark	Notes
(a)		6	1	B1
(b)		-48	1	B1
(c)		16	1	B1

compiled by examinent.com

19. 4MA1_1FR_rms_20180525 Q: 1

Q	Working	Answer	Mark	Notes
a		African buffalo	1	B1 accept buffalo or 725
b		100	1	B1 accept (one) hundreds
c		1192	1	B1 accept -1192
d	$800 \times 20 \div 1000$	16	2	M1 ft for any number in the table A1

compiled by examinent.com

20. 4MA1_1FR_rms_20180525 Q: 9

Q	Working	Answer	Mark	Notes
a		Alto Campoo	1	B1 Do not accept -8
b		8	1	B1
c	$(-7) - 1800 \div 300$	-13	2	M1 for $\pm 1800 \div 300$ or ± 6 A1

compiled by examinent.com

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