IGCSE (9-1) Edexcel Past Papers

MATHEMATICS A

Paper 2F, 2FR

2020 — 2025

1 – (4MA1/2F_Summer_2020_Q1) – *Numbers And The Number System*

Here is a list of numbers.

1	17	21	25	26	31	39	64

From this list, write down

(a) an even number

.....

(1)

(b) a multiple of 3

.....

(1)

(c) a prime number

.....

(1)

(d) a cube number

.....

(1)

2 – (4MA1/2F_Summer_2020_Q2) – *Numbers And The Number System*

(a) Change 3 litres into millilitres.

..... millilitres

(1)

(b) Change 6500 grams into kilograms.

..... kilograms

(1)

3 - (4MA1/2F_Summer_2020_Q4) - *Numbers And The Number System*

The table gives the minimum temperature for January 2018 in each of six cities.

City	Minimum temperature (°C)
Barcelona	3
Donetsk	−10
Mexico City	−1
Mombasa	22
New York	−15
Sydney	15

(a) Which of these six cities has the lowest minimum temperature?

.....

(1)

(b) Work out the difference between the minimum temperature of Donetsk and the minimum temperature of Sydney.

..... °C

(1)

The minimum temperature in Edmonton for January 2018 was 50°C less than the minimum temperature in Mombasa for January 2018

(c) Work out the minimum temperature in Edmonton for January 2018

..... °C

(1)

4 – (4MA1/2F_Summer_2020_Q5) – *Numbers And The Number System*

(a) Write these decimals in order of size.
Start with the smallest decimal.

0.9 0.035 0.003 0.539 0.5

.....

(1)

(b) Write 0.6 as a percentage.

.....%

(1)

(c) Write $\frac{60}{7}$ as a mixed number.

.....

(1)

(d) Work out the difference between $\frac{19}{20}$ and 0.68

Give your answer as a decimal.

.....

(2)

5 - (4MA1/2F_Summer_2020_Q8) - *Numbers And The Number System*

Lucas is going on a country walk.

Lucas works out how long each part of his walk will take.
This information is shown in the following table.

	Time taken
Walk from home to Village A	20 minutes
Walk from Village A to Village B	35 minutes
Stop for lunch in Village B	1 hour 15 minutes
Walk from Village B to home	30 minutes

Lucas leaves home at 11 10

At what time will Lucas get home?

.....

3 marks

ANSWERS

1 – (4MA1/2F_Summer_2020_Q1) – *Numbers And The Number System*

a		26 or 64	1	B1	or both 26 and 64 with no others
b		21 or 39	1	B1	or both 21 and 39 with no others
c		17 or 31	1	B1	or both 17 and 31 with no others
d		1 or 64	1	B1	or both 1 and 64 with no others
					Total 4 marks

2 – (4MA1/2F_Summer_2020_Q2) – *Numbers And The Number System*

a		3000	1	B1	
b		6.5	1	B1	
					Total 2 marks

3 – (4MA1/2F_Summer_2020_Q4) – *Numbers And The Number System*

a		New York	1	B1	accept −15
b		25	1	B1	accept −25
c		−28	1	B1	
					Total 3 marks

4 – (4MA1/2F_Summer_2020_Q5) – *Numbers And The Number System*

a		0.003, 0.035, 0.5, 0.539, 0.9	1	B1	
b		60	1	B1	allow 60%
c		$8\frac{4}{7}$	1	B1	oe
d	0.95 − 0.68 **or** $\frac{95}{100}-\frac{68}{100}$ **or** $\frac{19}{20}-0.68$ oe		2	M1	or $\frac{27}{100}$ or 27%
		0.27		A1	
					Total 5 marks

5 – (4MA1/2F_Summer_2020_Q8) – *Numbers And The Number System*

	13 50	3	B3	For the correct time of 13 50 or 1.50 pm or 1.50 in the afternoon oe (B2 for 1.50 or 1.50 am or stating 2 hours 40 mins or 160 mins or intention to add all 4 times onto 11.10 B1 for intention to add all 4 times together or evidence of intention to add on 2 or 3 times to 11 10)
				Total 3 marks

6 – (4MA1/2F_Summer_2020_Q9) – *Numbers And The Number System*

a i		33	1	B1	accept 32 – 34
ii		15	1	B1	accept 15 – 16
b	e.g. 820 ÷ 10 × "33" (= 2706) **or** 2850 ÷ 50 × "15" (= 855)		2	M1	method to convert 820 metres to feet **or** 2850 feet to metres, allow ft from (ai) or (aii) **or** a value for 820 m to feet in range (2620 – 2740) **or** a value for 2850 feet to m in range (830 – 900)
		2850 feet supported by working		A1	2850 selected (could be unambiguously circled, underlined or stated) with correct working and figures as above to justify result, ft from part (ai) or (aii)
					Total 4 marks