



Class  
Maths

Video Solutions



# PRACTICE PAPER FOR

## Edexcel Paper 1F (June 2023)

### ----- Disclaimer -----

In 2022 I wrote a series of predicted papers that in many cases reflected the real exam paper very well. This was due to the exam boards providing advance information on the topics that were going to be in each paper. This information is no longer provided so “predicting” a paper is not possible. Nobody can know what topics and types of questions will come up in each paper, apart from the few examiners that write them.

This paper has been created based on the **most common** paper 1 topics from previous years. Due to the nature of some topics they are better suited to paper 1 as if you had a calculator they would no longer be difficult to do. The paper should be excellent at helping students revise for exams, however should not be relied upon as the basis for revision. The topics from this paper may well appear in the real exams, however there is absolutely no guarantee of this for the reasons previously mentioned. Some topics may appear, some may not.

Ultimately the best way to prepare for the exams is to **revise all topics**.



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## ----- INFORMATION FOR TEACHERS -----

**You will want to remove this page before printing to ensure that questions across a double page print in the correct places.**

Topic	Series %	Paper 1 %	Question(s)
Rounding Numbers	100%	60%	1
Evaluating Indices	80%	50%	2
Ordering Numbers	90%	40%	3
Converting between Fractions, Decimals and Percentages	100%	90%	4
Factors and Multiples	100%	40%	5
Algebraic Simplification	100%	50%	6
Coordinates	60%	40%	7
Pictograms	80%	50%	8
Basic Probability	100%	60%	8, 14
Division (Formal or Contextual)	70%	50%	9, 12
Fraction Operations	100%	100%	10
Expand	80%	40%	11
Factorise	90%	40%	11
Write as a Ratio	100%	80%	12
Relate Ratio to Fractions or Percentages	60%	50%	12
Percentage of an Amount	90%	40%	12
Direct Proportion	100%	90%	15, 16
Metric Unit Conversions	90%	60%	16, 19
Transformations	100%	50%	17
Substitution	90%	60%	18
Speed, Distance, Time	80%	60%	19
Prime Factors	50%	40%	20
Index Laws	80%	50%	21
Standard Form	100%	40%	22
Estimation	50%	40%	23
Rectilinear Areas	90%	40%	23
Application of Ratio	100%	80%	24
Fraction of an Amount	100%	90%	24
Increase/Decrease by a Percentage	70%	60%	24
Solve Linear Equation	100%	80%	25
Form and Solve Equation	90%	40%	25
Sequences	100%	50%	26

**Answer ALL questions**

**Write your answers in the spaces provided**

**You must write down all the stages in your working.**

**1** Write 468 to the nearest 10

.....

**(Total for Question 1 is 1 mark)**

**2** Write down the value of  $5^2$

.....

**(Total for Question 2 is 1 mark)**

**3** Write the following numbers in order of size.  
Start with the smallest number.

0.21

0.12

0.2

0.112

.....

**(Total for Question 3 is 1 mark)**

**4** Write 85% as a decimal.

.....

**(Total for Question 4 is 1 mark)**



5 Here is a list of numbers

2      5      6      8      20      24

From the list write down

(a) A multiple of 10

.....  
(1)

(b) A factor of 12

.....  
(1)

**(Total for Question 5 is 2 marks)**

6 (a) Simplify  $m \times 7 \times m$

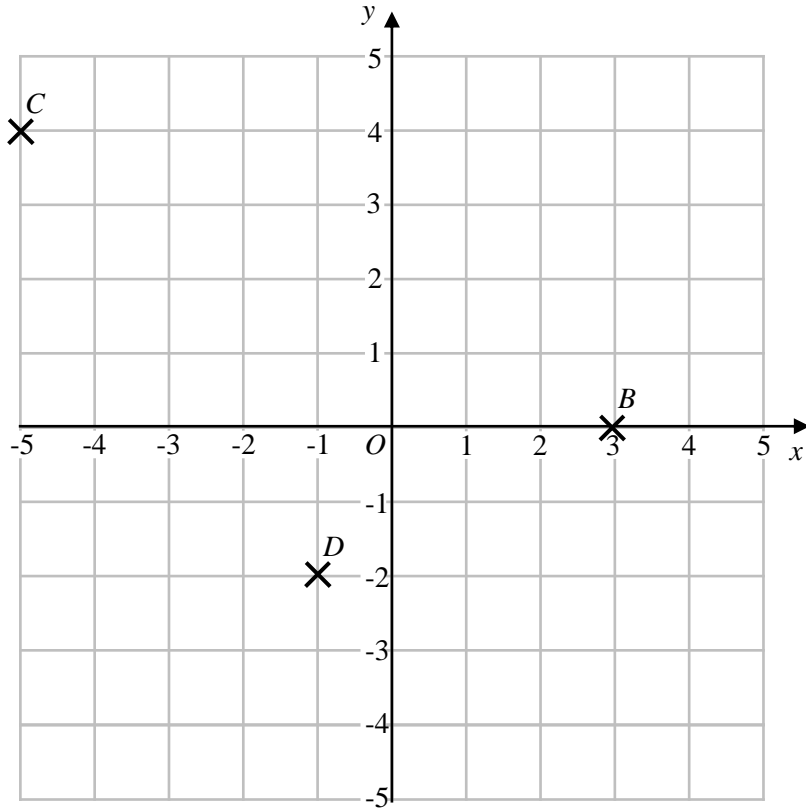
.....  
(1)

(b) Simplify  $10x - x + 5x$

.....  
(1)

**(Total for Question 6 is 2 marks)**

7



(a) Write down the coordinates of point  $B$ .

(....., .....)  
(1)

(b) Write down the coordinates of the midpoint of  $CD$ .

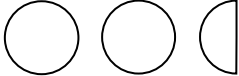
(....., .....)  
(1)

(Total for Question 7 is 2 marks)



8 A bag contains 50 discs that are red or blue or yellow.

The pictogram below shows information about the colours of the discs.  
The number of red discs has been completed.

Red	
Blue	
Yellow	

Key:

20 of the discs are red.  
16 of the discs are blue  
The rest are yellow.

(a) Complete the pictogram.

(3)

One of the discs is selected at random.

(b) Write down the probability that the disc is red.

.....  
(2)

**(Total for Question 8 is 5 marks)**

9 Damian buys 3 cans of drink.  
He pays with a £5.00 note and receives £3.05 in change.

Work out the cost of one can of drink.

£ .....

(Total for Question 9 is 3 marks)

10 (a) Work out  $\frac{3}{5} \times \frac{1}{9}$

Give your answer as a fraction in its simplest form.

.....  
(2)

(b) Work out  $\frac{2}{3} - \frac{2}{9}$

Give your answer as a fraction in its simplest form.

.....  
(2)

(Total for Question 10 is 4 marks)



11 (a) Expand  $5(3 - x)$

(b) Factorise  $7y - 14$

.....  
(1)

.....  
(1)

**(Total for Question 11 is 2 marks)**

---

12 Bags of sweets cost £3 each.

Karen has £23

(a) Work out the maximum number of bags of sweets that Karen can buy.

.....  
(2)

Kevin also has £23.

Kevin says: "If we put our money together we can now buy exactly twice as many bags of sweets".

Is Kevin correct?

You must give a reason for your answer.

.....  
.....  
(1)

**(Total for Question 12 is 3 marks)**

---



13 A shop sells both hot and cold drinks.

On Monday, 30% of all drinks sold were hot drinks.

(a) Write as ratio in its simplest form

Number of hot drinks sold on Monday : Number of cold drinks sold on Monday

.....  
(2)

On Tuesday

Number of hot drinks sold : Number of cold drinks sold = 3 : 2

(b) Work out the percentage of drinks sold on Tuesday that were hot drinks.

.....  
(2)

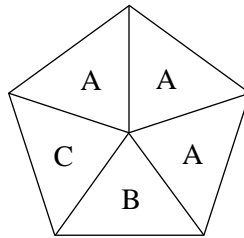
On Wednesday a total of 220 drinks were sold.  
65% of these drinks were cold drinks.

(c) Work out how many cold drinks were sold on Wednesday.

.....  
(3)

(Total for Question 13 is 7 marks)

14 A fair spinner made from a regular pentagon as shown below.



(a) Write down the probability that the spinner will **not** land on the letter C.

.....  
(1)

The spinner is spun 300 times.

(b) Work out an estimate for the number of times that the spinner will land on the letter A.

.....  
(3)

(Total for Question 14 is 4 marks)

15 A photocopier can produce 300 copies in 6 minutes.

Work out how many copies 11 of these photocopiers can produce in 4 minutes?

.....  
(Total for Question 15 is 3 marks)

16 Some of the ingredients needed to make 10 pancakes are shown below.

For 10 pancakes	
Flour	300 g
Milk	40 cl
Eggs	2

- (a) Work out how much flour is needed to make 25 pancakes.  
Give your answer in kilograms.

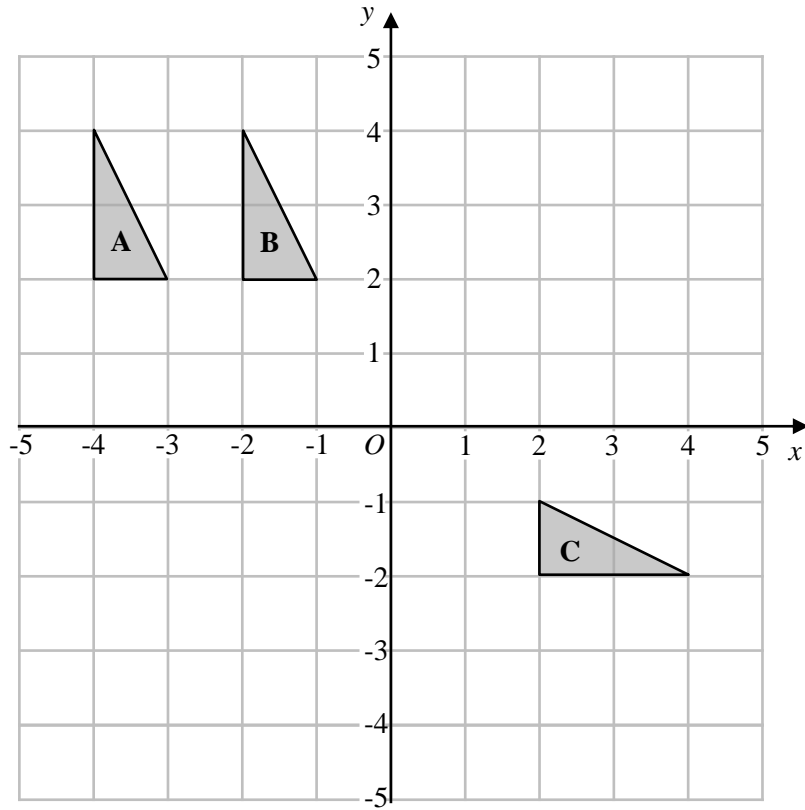
..... kg  
(3)

Sarah has 2 litres of milk.

- (b) Show that Sarah has enough milk for exactly 50 pancakes. (2)

(Total for Question 16 is 5 marks)

17



(a) Describe fully the single transformation that maps triangle **A** onto triangle **B**

.....

.....

(2)

(b) Rotate triangle **C**  $90^\circ$  clockwise about the origin.  
Label the new triangle **D**.

(2)

(Total for Question 17 is 4 marks)

18  $T = 5m + 7$

(a) Work out the value of  $T$  when  $m = 3$

.....  
(2)

(b) Work out the value of  $m$  when  $T = 32$

.....  
(2)

**(Total for Question 18 is 4 marks)**

19 Georgia runs 2.4 km in 10 minutes.

Work out her average speed in metres per second.

..... m/s

**(Total for Question 19 is 4 marks)**



20 Write 45 as a product of its prime factors.

.....  
(Total for Question 20 is 2 marks)

21 (a) Simplify  $(p^5)^4$

.....  
(1)

(b) Work out the value of  $\frac{2^6}{2^3}$

.....  
(2)

(Total for Question 21 is 3 marks)

22 (a) Write  $8.2 \times 10^5$  as an ordinary number.

.....

(1)

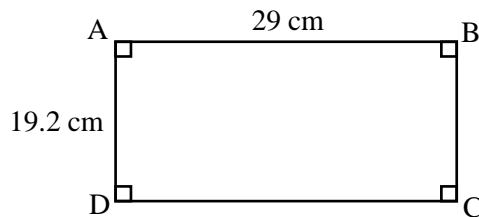
(b) Write  $3.14 \times 10^{-2}$  as an ordinary number.

.....

(1)

**(Total for Question 22 is 2 marks)**

23 ABCD is a rectangle.



(a) Work out an estimate for the area of rectangle ABCD.

..... cm<sup>2</sup>

(3)

(b) Is your answer to part (a) an underestimate or an overestimate?

Give reasons for your answer.

.....

.....

(1)

**(Total for Question 23 is 4 marks)**



24 A cinema has 400 seats.

A film is shown at 5pm and at 7pm with two types of tickets available, adult and child.

At the 5pm showing of the film

- The ratio of tickets sold to adults to tickets sold to children is 5 : 3
- 120 tickets are sold to children.

At the 7pm showing of the film

- The number of adult tickets sold is 15% less than at 5pm
- The number of child tickets sold is 10% more than at 5pm

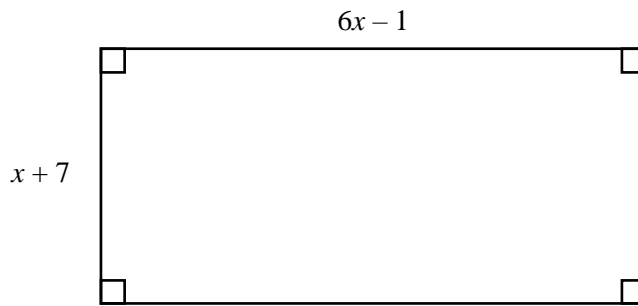
Show that at the 7pm showing more than  $\frac{3}{4}$  of the seats are used.

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(Total for Question 24 is 5 marks)



25 Here is a rectangle with a perimeter of 54 cm



(a) Show that  $14x + 12 = 54$

(2)

(b) Find the value of  $x$

$x = \dots\dots\dots$

(2)

**(Total for Question 25 is 4 marks)**

16

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26 Here are the first four terms of an arithmetic sequence.

12      17      22      27

Write down an expression in terms of  $n$ , for the  $n$ th term of the sequence.

.....  
(2)

The  $n$ th term of another sequence is given by the expression  $7n - 13$

(b) Find the 9<sup>th</sup> term of this sequence.

.....  
(1)

**(Total for Question 26 is 3 marks)**

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**TOTAL FOR PAPER IS 80 MARKS**