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With solutions by

Video Solutions



Class
Maths



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**.



@1stclassmaths

----- 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
Fraction of an Amount	100%	90%	2, 13, 14, 23
Metric Unit Conversions	90%	60%	3
Converting between Fractions, Decimals and Percentages	100%	90%	4
Ordering Numbers	90%	40%	5
Factors and Multiples	100%	40%	5
Basic Probability	100%	60%	5, 8
Algebraic Simplification	100%	50%	6
Coordinates	60%	40%	7
Probability Scales	60%	40%	8
Money	100%	60%	9
Fraction Operations	100%	100%	10
Expand	80%	40%	11
Factorise	90%	40%	11
Division (Formal or Contextual)	70%	50%	12
Pictograms	80%	50%	13
Percentage of an Amount	90%	40%	13, 14
Direct Proportion	100%	90%	14
Write as a Ratio	100%	80%	15, 23
Relate Ratio to Fractions or Percentages	60%	50%	15
Transformations	100%	50%	16
Speed, Distance, Time	80%	60%	17
Substitution	90%	60%	18
Prime Factors	50%	40%	19
Index Laws	80%	50%	20
Standard Form	100%	40%	21
Estimation	50%	40%	22
Application of Ratio	100%	80%	23
Solve Linear Equation	100%	80%	24
Form and Solve Equation	90%	40%	24
Sequences	100%	50%	25



Answer ALL questions

Write your answers in the spaces provided

You must write down all the stages in your working.

1 Write 562 to the nearest 100

.....

(Total for Question 1 is 1 mark)

2 Work out $\frac{1}{3}$ of 60

.....

(Total for Question 2 is 1 mark)

3 Change 9 kilograms into grams

..... grams

(Total for Question 3 is 1 mark)

4 Write 0.7 as percentage

.....

(Total for Question 4 is 1 mark)





5 Here is a list of numbers

-3 3 2 -7 5 10

- (a) Write the numbers in order of size.
Start with the smallest.

.....
(1)

Rita picks one of the numbers from the list at random.

- (b) Write down the probability that Rita picks a multiple of 10.

.....
(2)

(Total for Question 5 is 3 marks)

6 (a) Simplify $t \times t \times t$

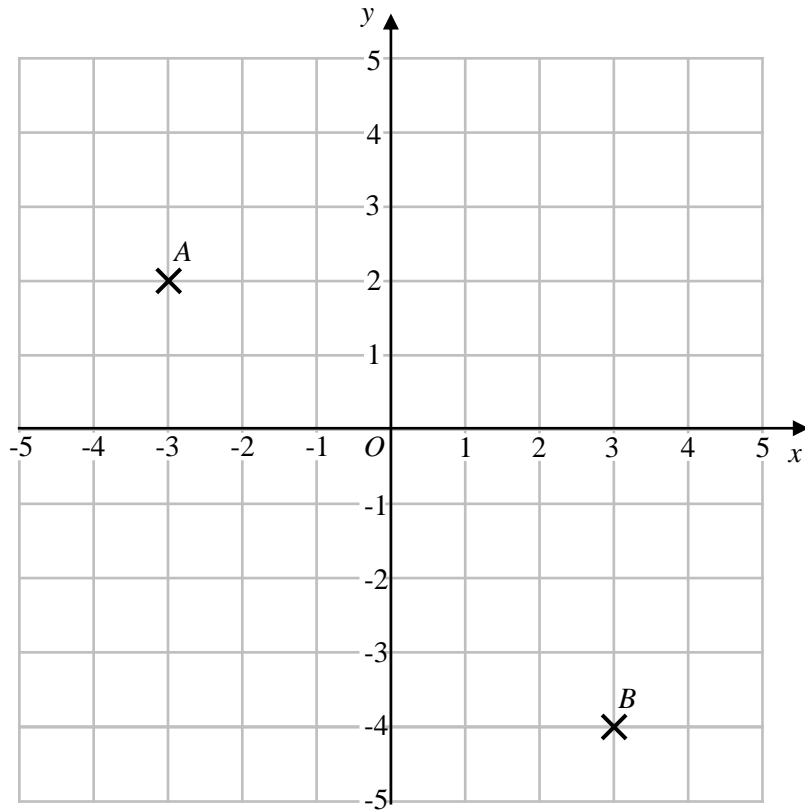
.....
(1)

(b) Simplify $3x + 2x + 5$

.....
(2)

(Total for Question 6 is 3 marks)

7



(a) Write down the coordinates of point A.

(..... ,)
(1)

Point C is the midpoint of the line AB.

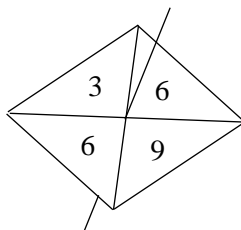
(b) Write down the coordinates of point C.

(..... ,)
(2)

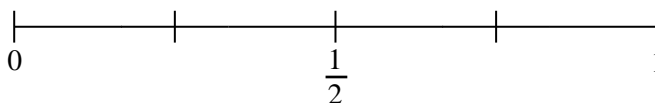
(Total for Question 7 is 3 marks)



8 A fair spinner made from a square is shown below.

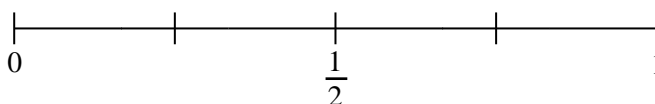


(a) On the probability scale below, mark with a cross (×) the probability that the spinner lands on a number 3



(1)

(b) On the probability scale below, mark with a cross (×) the probability that the spinner lands on a number that is a multiple of 3.



(1)

A bag contains 15 counters.
8 counters are blue and the rest of the counters are yellow.

A counter is taken from the bag at random.

(c) Work out the probability that the counter taken is yellow.

.....
(2)

(Total for Question 8 is 4 marks)

9 Emma buys a new TV.
She pays a deposit of £150 and then 6 equal monthly payments.
The monthly payments are £40.

Work out the total cost of the TV.

£

(Total for Question 9 is 2 marks)

10 (a) Work out $\frac{3}{5} \div 2$

.....
(2)

(b) Work out $\frac{1}{8} + \frac{1}{2}$

Give your answer as a fraction in its simplest form.

.....
(2)

(Total for Question 10 is 4 marks)





11 (a) Expand $x(x + 6)$

(b) Factorise $2y + 10$

.....
(1)

.....
(1)

(Total for Question 11 is 2 marks)

12 Zach has 4 metres of ribbon.

He needs to cut this into shorter pieces of ribbon, each with a length of 70 cm.

How many complete ribbons of length 70 cm can be cut from the 4 metre length of ribbon.

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

13 A bookshop kept a note of how many books they sold on each weekday.

The pictogram below shows the number of books sold on each day.

Monday	
Tuesday	
Wednesday	
Thursday	<input type="checkbox"/>
Friday	<input type="checkbox"/> <input type="checkbox"/>

Key:



Represents 4 books sold

In total the shop sold 40 books across all five days.

30% of the books were sold on Monday.

$\frac{1}{4}$ of the books were sold on Tuesday.

Complete the pictogram.


(Total for Question 13 is 5 marks)



14 Sweets are available from two different shops.

Each shop has a special offer.

Shop A

 300 g $\frac{1}{3}$ off normal price of £1.80

Shop B

 400 g 20% off normal price of £2.10

Which shop is better value for money?
You must show your working.

(Total for Question 14 is 4 marks)

15 Archie, Bella and Chris each play the same computer game.
During a week they record how many games they win, draw and lose.

Archie wins 50% of his games, draws 45% of his games and loses the rest.

(a) Write as a ratio in its simplest form

Archie's number of wins : Archie's number of draws : Archie's number of losses

.....
(2)

Bella's number of wins : Bella's number of draws : Bella's number of losses = 3 : 4 : 1

(b) Work out the fraction of Bella's games that were wins.

.....
(2)

Chris won 60% of the games that he played.

Chris says:

"I won 60% of my games and Archie only won 50% so I must have more wins than Archie".

(c) Is Chris correct?

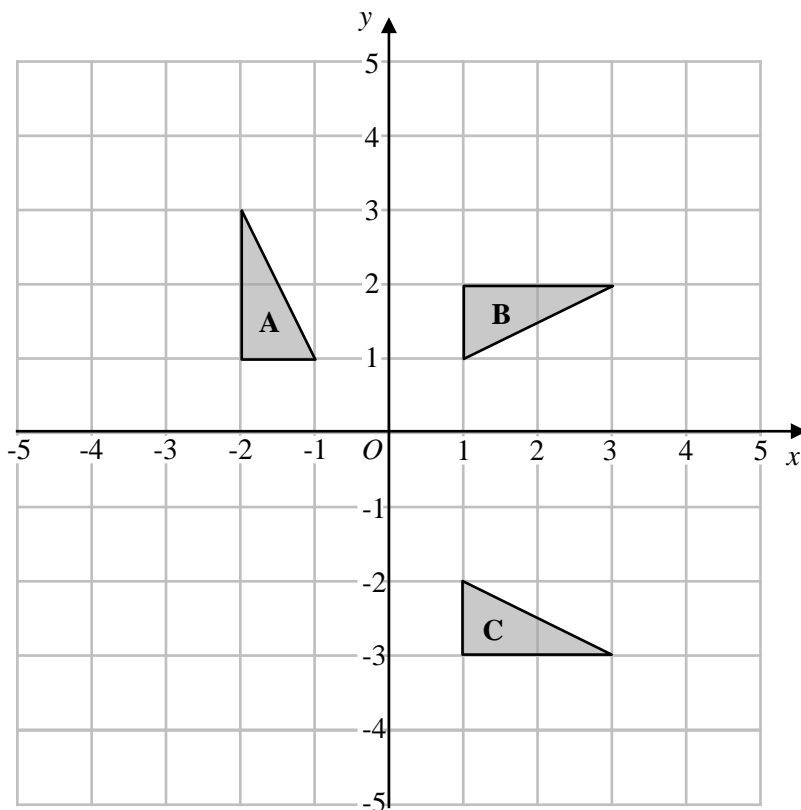
Give reasons for your answer.

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

(Total for Question 15 is 5 marks)



16



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

.....

.....

.....

(3)

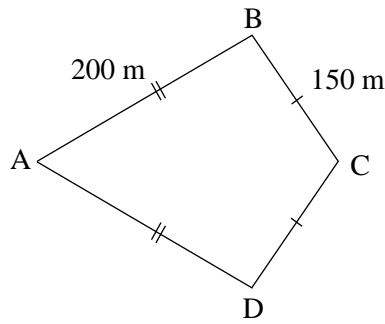
(b) Translate triangle **C** with the vector $\begin{pmatrix} 2 \\ -1 \end{pmatrix}$

Label the new triangle **D**.

(2)

(Total for Question 16 is 5 marks)

17 A race course is in the shape of the kite shown below.



Callum starts at A and runs to B, then to C and then to D.
His average speed for the journey from A to D is 4 m/s.
He then runs from D to A to complete one lap of the course.
His average speed for the journey from D to A is 5 m/s.

Work out many seconds Callum takes to complete the lap of the race course.

..... seconds.

(Total for Question 17 is 3 marks)





18 $M = 2p - 10$

(a) Work out the value of M when $p = 2$

.....
(2)

(b) Work out the value of p when $M = 14$

.....
(2)

(Total for Question 18 is 4 marks)

19 Write 24 as a product of its prime factors.

.....
(Total for Question 19 is 2 marks)

20 (a) Simplify $(2p^2)^3$

.....
(2)

(b) Work out the value of $2^4 \times 5^2$

.....
(3)

(Total for Question 20 is 5 marks)





21 Work out $(7 \times 10^4) \times (5 \times 10^3)$

Give your answer in standard form.

.....
(Total for Question 21 is 2 marks)

22 Work out an estimate for $\frac{51 \times 591}{28}$

.....
(Total for Question 22 is 3 marks)

23 A bag contains 1p coins, 2p coins and 5p coins.

$$\text{number of 1p coins} : \text{number of 2p coins} : \text{number of 5p coins} = 2 : 9 : 4$$

The total value of the 2p coins in the bag is £1.08

$\frac{1}{3}$ of the 5p coins are removed from the bag.

For each 5p coin that was removed from the bag a 1p coin is added into the bag.

Once this has been done:

$$\text{total value of 5p coins in the bag} : \text{total value of 1p coins in the bag} = n : 1$$

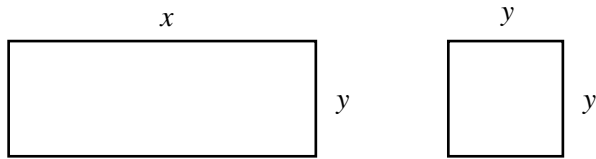
Find the value of n

$$n = \dots\dots\dots$$

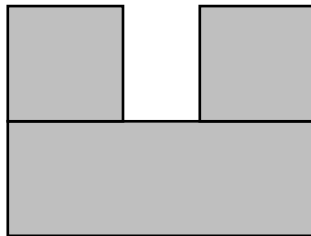
(Total for Question 23 is 5 marks)



24 Here is a rectangle and a square.



The shaded shape below is formed using one of the rectangles and 2 of the squares.



The perimeter of the shaded shape is equal to 54 cm

(a) Show that $2x + 6y = 54$ (2)

The perimeter of the square is 20 cm.

(b) Find the value of x

$x = \dots\dots\dots$
(3)

(Total for Question 24 is 5 marks)

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

20 28 36 44

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 $2 - 5n$

(b) Find the 12th term of this sequence.

.....
(2)

(Total for Question 25 is 4 marks)

TOTAL FOR PAPER IS 80 MARKS

