1st Class Maths

Video Solutions

SCAN ME

PRACTICE PAPER FOR

Edexcel Paper 2F (June 2024)

---------- Disclaimer ----------

This paper has been created based on the **most common** paper 2/3 topics from previous years and also careful analysis of what topics have already appeared in paper 1. 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. Some topics may appear, some may not. Anybody giving you any sort of guarantee is misleading you. If any topics or questions from this paper do come up, this is just lucky guessing and nothing more. ☺

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

You can find a link to this paper and many more completely free resources at www.1stclassmaths.com

Answer ALL questions

Write your answers in the spaces provided

You must write down all the stages in your working.

1 Write 90% as a fraction.

.....

(Total for Question 1 is 1 mark)

2 Write down three different multiples of 12

.....

(Total for Question 2 is 1 mark)

3 Write 3.2 litres in millilitres.

..... ml

(Total for Question 3 is 1 mark)

4 Work out 25% of 120

.....

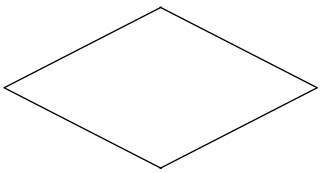
(Total for Question 4 is 1 mark)

5 Write down the square number that is closest to 200

.....

(Total for Question 5 is 1 mark)

6 (a) All four sides of this quadrilateral are the same length
Write down the mathematical name of this quadrilateral.



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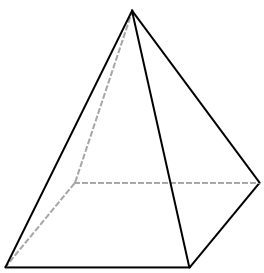
(1)

(b) Write down the mathematical name of this 3-D shape.



.....

(1)

(Total for Question 6 is 2 marks)

7 Solve $\frac{n}{5} = 20$

$n =$ .....

(Total for Question 7 is 1 mark)

Turn over ▶

8 (a) Simplify $5 \times y \times y$

.....

(1)

(b) Simplify $\dfrac{9a - a}{2}$

.....

(1)

(c) Simplify $6x^2 + 8 - 2x^2 - 9$

.....

(2)

(Total for Question 8 is 4 marks)

9 Here are the first four terms of a number sequence

2 5 14 41

(a) Write a number in each box to complete the term-to-term rule for the sequence.

Term-to-term rule:

Multiply the previous term by ..... then subtract .....

(2)

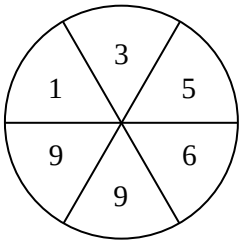
(b) Work out the 5th term of the sequence.

.....

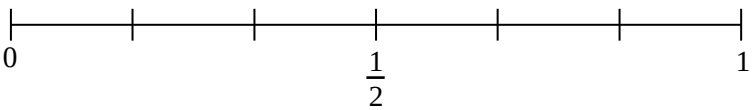
(1)

(Total for Question 9 is 3 marks)

10 A fair spinner with 6 equal sections is shown below.

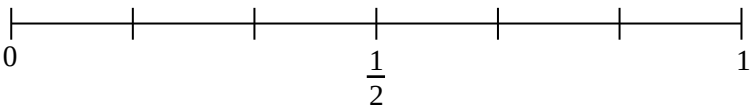


(a) On the probability scale below, mark with a cross (×) the probability that the spinner lands on an odd number.



(1)

(b) On the probability scale below, mark with a cross (×) the probability that the spinner lands on a factor of 12.



(1)

The spinner is spun 900 times.

(c) Work out an estimate for the number of times it will land on a number 9.

.....

(2)

(Total for Question 10 is 4 marks)

11 A sweet shop sells sweets at a fixed cost per gram.

300g of sweets in the sweet shop costs £3.30

Work out the cost of $\frac{3}{4}$ of a kilogram of sweets at the sweet shop.

£.....

(Total for Question 11 is 3 marks)

12 Joshua ran a marathon in $3\frac{1}{4}$ hours.

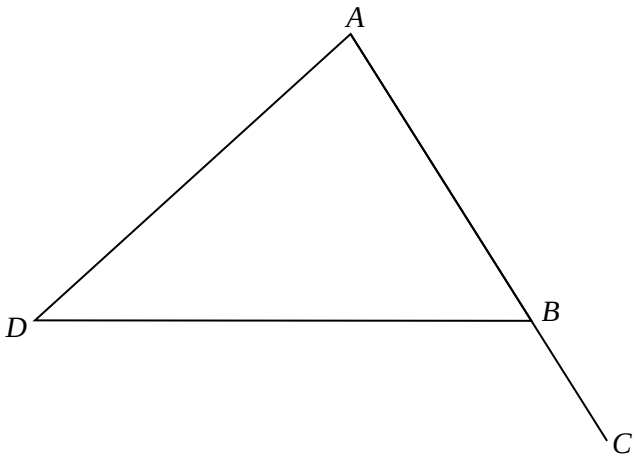
He then spent 45 minutes walking home after the marathon.

Write, as a ratio, the time Joshua spent running the marathon to the time he spent walking home after the marathon.
Give your ratio in its simplest form.

.....

(Total for Question 12 is 3 marks)

13



ABD is a triangle.
ABC is a straight line.

Louise measures the following angles using a protractor

Angle *ADB* = 32°
Angle *BAD* = 81°

(a) Using Louise's measurements, work out the size of angle *CBD*.

.....
°

(3)

Louise's measurement of angle *ADB* is found to be higher than the true size of the angle.
Louise's measurement of angle *BAD* is found to be accurate.

(b) Will the true size of angle *CBD* be higher or lower than your answer to part (a)?
Give a reason for your answer.

.....

.....

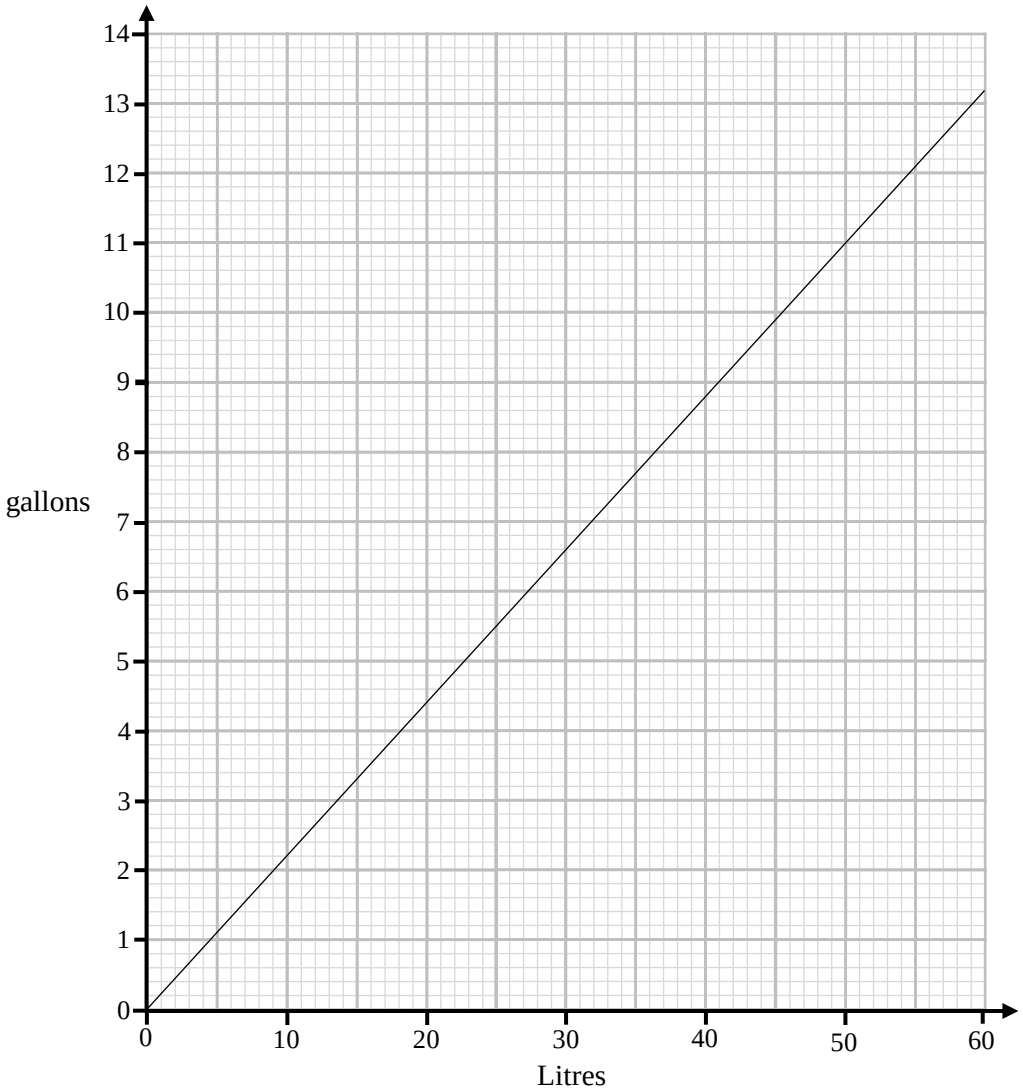
.....

(1)

(Total for Question 13 is 4 marks)

Turn over ▶

14 You can use this graph to change between litres and gallons.



(a) Convert 40 litres into gallons.

..... gallons

(1)

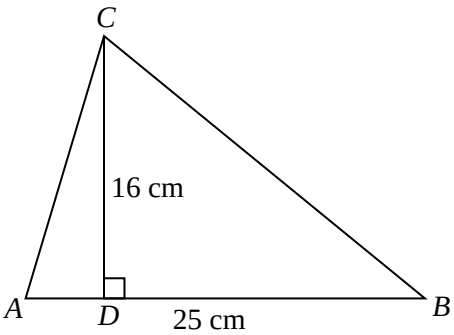
(b) Convert 1800 gallons into litres.

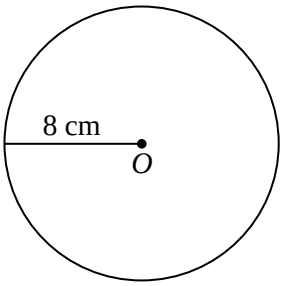
..... litres

(2)

(Total for Question 14 is 3 marks)

15 Here is triangle ABC and a circle, centre O.





$AB = 25$ cm
$CD = 16$ cm
Show clearly that the area of the circle is greater than the area of the triangle.

(Total for Question 15 is 3 marks)

16 (a) Use your calculator to work out $\dfrac{3.08^3 - \pi}{\sqrt{22} - 3}$

Write down all the figures on your calculator display.

.....

(2)

(b) Round your answer from part (a) to 4 significant figures.

.....

(1)

(Total for Question 16 is 3 marks)

17 (a) Factorise $8h - 12$

.....

(1)

(b) Make m the subject of $k + m = p$

.....

(1)

(c) $g = u^2 - d$

Find the value of g when $u = -12$ and $d = -3$

$g =$.....

(2)

(Total for Question 17 is 4 marks)

18 Here is a map of an island.

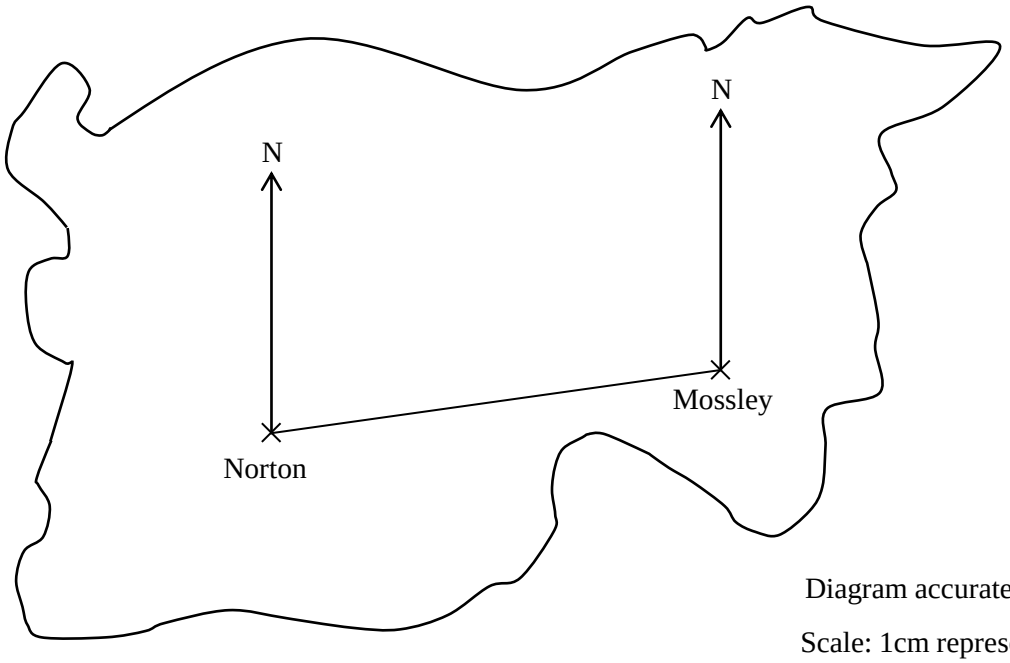


Diagram accurately drawn

Scale: 1cm represent 5.5 km

A straight road joins the two towns, Norton and Mossley.

(a) Work out the real distance between the two towns.

..... km

(2)

(b) Find the bearing of Mossley from Norton.

°

.....

(1)

(Total for Question 18 is 3 marks)

19 Expand and simplify $10(n + 6) – 2(n – 5)$

.....

(Total for Question 19 is 2 marks)

20 (a) Write 8.1×10^{-3} as an ordinary number.

.....

(1)

(b) Write 419 000 in standard form.

.....

(1)

(c) Work out $\dfrac{9.5 \times 10^{-1}}{1.3 \times 10^{-5} \times 1.1 \times 10^{6}}$

Give your answer in standard form, correct to 3 significant figures.

.....

(2)

(Total for Question 20 is 4 marks)

21 A number, n, is rounded to 2 decimal places.
The result is 1.79
Complete the error interval for n.

..... $\leq n <$ .....

(Total for Question 21 is 2 marks)

22 In a bag there are only red, yellow, blue and green counters.

The table shows the probabilities of taking a counter of each colour.

Colour	Red	Yellow	Blue	Green
Probability	0.4	0.04		

Number of blue counters in the bag : number of green counters in the bag = 2 : 5

Complete the table.

(Total for Question 22 is 3 marks)

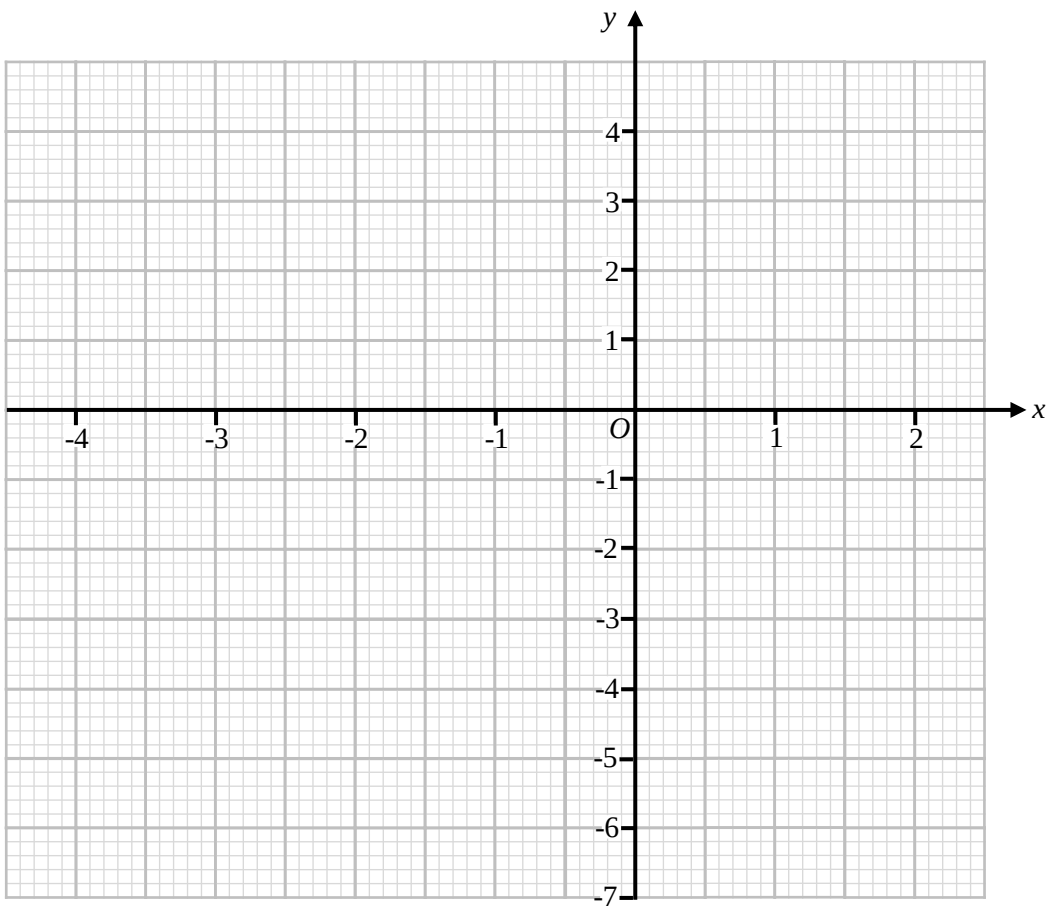
Turn over ▶

23 (a) Complete the table of values for $y = x^2 + 2x - 5$

x	-4	-3	-2	-1	0	1	2
y		-2		-6		-2	3

(2)

(b) On the grid, draw the graph of $y = x^2 + 2x - 5$ for values of x from to -4 to 2



(2)

(c) Use your graph to estimate the roots of the equation $x^2 + 2x - 5 = 0$

.....

(2)

(Total for Question 23 is 6 marks)

24 The table shows information about the speeds of some cars on a road.

Speed, s (mph)	**Frequency**
$30 < s \leq 40$	1
$40 < s \leq 50$	14
$50 < s \leq 60$	37
$60 < s \leq 70$	48

(a) Find the class interval that contains the median.

.....

(1)

(b) Work out an estimate for the mean speed of the cars.

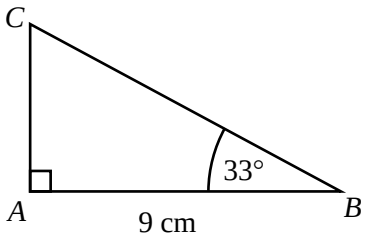
..... mph

(3)

(Total for Question 24 is 4 marks)

Turn over ▶

25 *ABC* is a right-angled triangle.

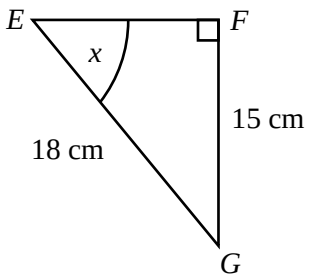


(a) Calculate the length of *AC*.
Give your answer correct to 3 significant figures.

..... cm

(2)

EFG is a right-angled triangle.



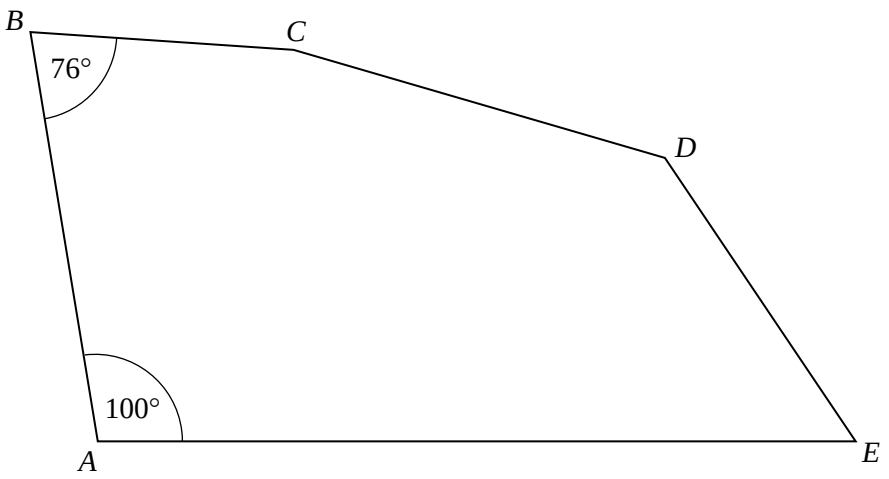
(b) Work out the size of the angle marked *x*.
Give your answer correct to 1 decimal place.

..... °

(2)

(Total for Question 25 is 4 marks)

26 *ABCDE* is a pentagon.



Angle *BCD* : Angle *CDE* : Angle *DEA* = 6 : 5 : 2

Work out the size of angle *DEA*.

°

.....

(Total for Question 26 is 4 marks)

Turn over ▶

27 (a) Factorise $x^2 - 15x + 36$

.....

(2)

(b) Simplify $(c^4)^5 \times (c^5)^4$

.....

(2)

(Total for Question 27 is 4 marks)

28 Dee invests £3200 for 5 years in a bank account paying 3.5% compound interest per year.
Work out how much money will be in Dee's bank account after 5 years.

£.....

(Total for Question 28 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS