

Cambridge IGCSE[™]

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		



MATHEMATICS 0580/12

Paper 1 (Core) February/March 2022

1 hour

You must answer on the question paper.

You will need: Geometrical instruments

INSTRUCTIONS

- Answer all questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do not use an erasable pen or correction fluid.
- Do not write on any bar codes.
- You should use a calculator where appropriate.
- You may use tracing paper.
- You must show all necessary working clearly.
- Give non-exact numerical answers correct to 3 significant figures, or 1 decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
- For π , use either your calculator value or 3.142.

INFORMATION

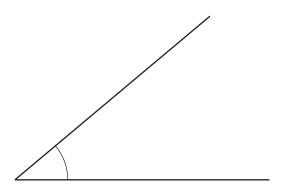
- The total mark for this paper is 56.
- The number of marks for each question or part question is shown in brackets [].

This document has 12 pages. Any blank pages are indicated.

Write the number s	sixteen thou	isand and thirty-seven in figures.	
Write down the six	factors of		[1]
		,,,,	[2]
Write 9876 correct	to the near		
The pictogram sho	ws the num		
	Yellow		
	Red		
	White		
	Silver		
	Key:	= 12 cars	
Work out how man	ny more wh	ite cars than red cars the garage sells.	
			[1]
	Write 9876 correct The pictogram sho	Write down the six factors of a write 9876 correct to the near The pictogram shows the num Yellow Red White Silver Key:	Red White Silver

5	Wri	te down the reciprocal of $\frac{5}{6}$.	
			[1]
6	This	s is Edha's method to work out 99×27 without using a calculator.	
		$99 \times 27 = 100 \times 27 - 27$ $= 2700 - 27$ $= 2673$	
	Sho	w how to use Edha's method to work out 99×68 without using a calculator.	
			[2]
7	(a)	Write 5.26 pm using the 24-hour clock.	
	(h)		[1]
	(D)	A journey starts at 21 15 one day and ends at 04 33 the next day.	
		Calculate the time taken, in hours and minutes.	
		h min	[1]
	(c)	Change 10 260 seconds into hours.	
		hours	[2]
		hours	[-]

8 (a)

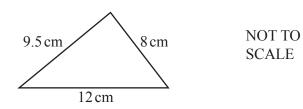


Measure the marked angle.

.....[1]

[2]

(b)



Using a ruler and compasses only, construct this triangle.

Leave in your construction arcs.

The side of length 12 cm has been drawn for you.

Put one pair of brackets into this calculation to make it correct.

9

	$150 - 17 - 5 \times 2^2 = 33$	
10	Work out $\sqrt{5} \times 6^2$. Give your answer correct to 2 decimal places.	[1]
		[2]
11	Joe thinks of a positive number, n . He squares n , then adds it to -24 . The answer is 25.	
	Work out <i>n</i> .	
	$n = \dots$	[2]
12	Indrani and Jagad share some money in the ratio Indrani: Jagad = 7:9.	
	Calculate the percentage of the money that Indrani receives.	
		[2]

13	The e	equation	of a	line	is	v =	5x + 7	
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(a) Write down the gradient of this line.

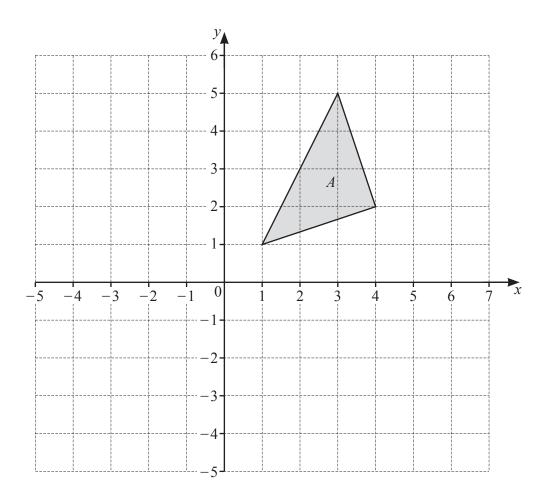
Г17
 [1]

(b) (i) Find the coordinates of the point where this line crosses the y-axis.

(ii) Find the coordinates of the point where this line crosses the x-axis.

(.....) [2]

14



On the grid, draw the image of

(a) triangle A after a reflection in the y-axis,

[1]

(b) triangle A after a translation by the vector $\begin{pmatrix} -3 \\ -4 \end{pmatrix}$. [2]

15	Write 0.0001 as a power of 10.	
		[1]
16	As the temperature increases, people eat more ice cream.	
	What type of correlation does this statement describe?	
		[1]
17	Sanjay invests \$700 in an account paying simple interest at a rate of 2.5% per year.	
	Calculate the value of his investment at the end of 6 years.	
	\$	[3]
18	These are the first four terms of a sequence.	
	1 23 45 67	
	(a) Write down the next two terms.	
	,	[2]
	(b) Find the <i>n</i> th term.	
		[2]

19	Simpl	lify.
	~ 1111	,

(a)
$$5f + 7g - 8f + 2g$$

(b) $h^2 \times h^5$

	[2]
	[1]

.....[2]

20	Balavan	has n	marbles
40	Daravan	mas n	marbics.

(c) $\sqrt{16x^2} \times 5y^0$

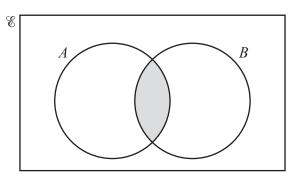
He gives his sister $\frac{n}{5}$ marbles.

He gives his cousin $\frac{n}{2}$ marbles.

Write an expression, in terms of n, for the number of marbles that Balavan has now. Give your answer in its simplest form.

.....[2]

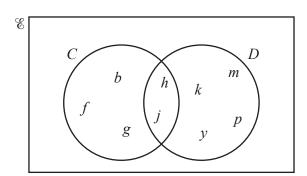
21 (a)



Use set notation to describe the shaded region.

.....[1]

(b)



Find n(C).

.....[1]

22		Hout using a calculator , work out $2\frac{1}{3} \times \frac{11}{14}$. must show all your working and give your answer as a mixed number in its simplest form.	
			[3]
23	(a)	Expand and simplify. $(x+3)(x-5)$	
		[[2]
	(b)	Renuka's teacher asks her to factorise completely $8x^2 - 12x$. Renuka writes $2x(4x-6)$ as her answer.	
		Explain why she does not score full marks and give the correct answer.	
		Reason	
		Correct answer	[2]

24	Udita thinks of two whole numbers. Both numbers are greater than 6. The lowest common multiple (LCM) of the two numbers is 90.
	The lowest common multiple (LCM) of the two numbers is 90. The highest common factor (HCF) of the two numbers is 6.
	Find the two numbers.
	and [2]
	und

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