

Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

IGCSE			
CANDIDATE NAME			
CENTRE NUMBER		CANDIDATE NUMBER	
MATHEMATICS			0580/12
Paper 1 (Core)		Octo	ober/November 2017
			1 hour
Candidates answer on	the Question Paper.		
Additional Materials:	Electronic calculator Tracing paper (optional)	Geometrical instrument	S

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Answer all questions.

If working is needed for any question it must be shown below that question.

Electronic calculators should be used.

If the degree of accuracy is not specified in the question, and if the answer is not exact, give the answer to three significant figures. Give answers in degrees to one decimal place.

For π , use either your calculator value or 3.142.

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

The total of the marks for this paper is 56.

This document consists of 10 printed pages and 2 blank pages.



1	Write, in figures, fourteen thousand and twenty s	even.		
2	One day, at noon, in Maseru, the temperature was At midnight the temperature was 20 °C lower.	s 17°C.		[1]
	Work out the temperature at midnight.			
				°C [1]
3	Write down the value of 12^0 .			
				[1]
4	Write 5.17×10^{-3} as an ordinary number.			
				[1]
				[1]
5	Write the following in order of size, starting with			
	$\frac{31}{50}$ 64%	<u>5</u> 8	0.63	
		smallest		. < [2]
6	A taxi journey costs \$4.50, plus 80 cents for each Julianna travels 7 km.	n kilometre tra	velled.	
	Work out the cost of her journey.			
				\$[2]

7 Work out.

$$\frac{6.32 + 2.06}{4.15 - 0.12}$$

Give your answer correct to 1 decimal place.

8 (a) 1 and 12 are factors of 12.

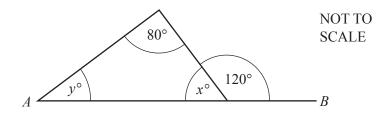
Write down all the other factors of 12.

																										ſ	-	1	-	l

(b) Write down the multiples of 9 between 20 and 40.

																																										Γ	1	<u> </u>	1	
•	•	٠	•	•	٠	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	٠	•	٠	٠	•	•	•	•	•	• •	•	•	•	•	•	•	•	•	•	•	•	•	L	•	١.	J	

9



In the diagram, AB is a straight line.

Find the value of x and the value of y.

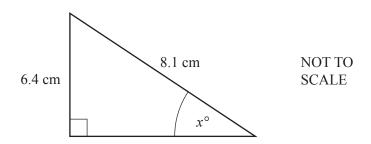
x =	
y =	[2]

10 Write 55 g as a percentage of 2.2 kg.

 	 %	[2]

	ne area of a triangle is ne length of its base is				
Ca	alculate the perpendic	cular height of the t	triangle.		
(a)	As the temperature What type of corre		mber of ice creams	s sold increases.	
a ·) Write days the tr	ma of completion t	there is between the		
				ic neight of all ad	iuit and the ame
(b)	they earn.	pe of correlation (ilicic is octweell ti		
(D)		pe of correlation (nere is between the		
(D)		pe of correlation (nere is between the		
Ba	they earn.	ining four types of	f sweet.		
Ba	they earn. astian has a bag conta e takes a sweet from t	ining four types of the bag at random.	sweet.		
Ba	they earn. astian has a bag conta e takes a sweet from t	ining four types of the bag at random. Mint	f sweet. Fruit	Toffee	Chocolate
Ba	they earn. astian has a bag conta e takes a sweet from t	ining four types of the bag at random.	sweet.		
Ва	they earn. astian has a bag conta e takes a sweet from t	ining four types of the bag at random. Mint	f sweet. Fruit		Chocolate
Ва	they earn. astian has a bag contact takes a sweet from the sweet	ining four types of the bag at random. Mint	f sweet. Fruit		Chocolate
Ва	they earn. astian has a bag contact takes a sweet from the sweet	ining four types of the bag at random. Mint	f sweet. Fruit		Chocolate
Baa He	they earn. astian has a bag contact takes a sweet from the sweet	ining four types of the bag at random. Mint 0.15	Fruit 0.3	Toffee	Chocolate
Ba He	they earn. astian has a bag contage takes a sweet from the sweet	ining four types of the bag at random. Mint 0.15	Fruit 0.3	Toffee	Chocolate
Ba He	stian has a bag contage takes a sweet from the sweet sweet from the sweet from the sweet from the sweet swee	ining four types of the bag at random. Mint 0.15	Fruit 0.3	Toffee st metre.	Chocolate 0.2
Ba He	stian has a bag contage takes a sweet from the sweet sweet from the sweet from the sweet from the sweet swee	ining four types of the bag at random. Mint 0.15	Fruit 0.3	Toffee st metre.	Chocolate
Ba He	stian has a bag contage takes a sweet from the sweet sweet from the sweet from the sweet from the sweet swee	ining four types of the bag at random. Mint 0.15	Fruit 0.3	Toffee st metre.	Chocolate 0.2

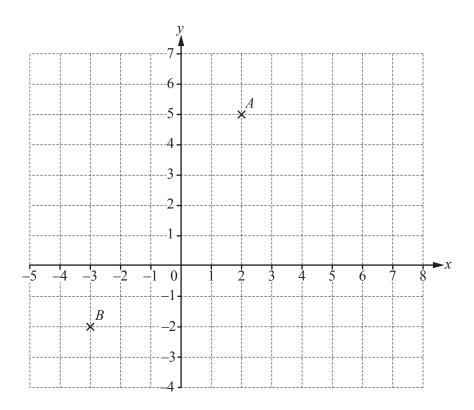
15



Calculate the value of x.

		[2]
$\boldsymbol{\chi}$	=	17.1

16



(a) Write down the co-ordinates of point A.

	`	Г17
 ,)	1

(b) Plot point C at (7, -2).

[1]

(c) Write down the mathematical name of the triangle formed by joining the points A, B and C.

[1]																																						1]	
-----	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	--

17	AB	is	a	straight	line.
----	----	----	---	----------	-------

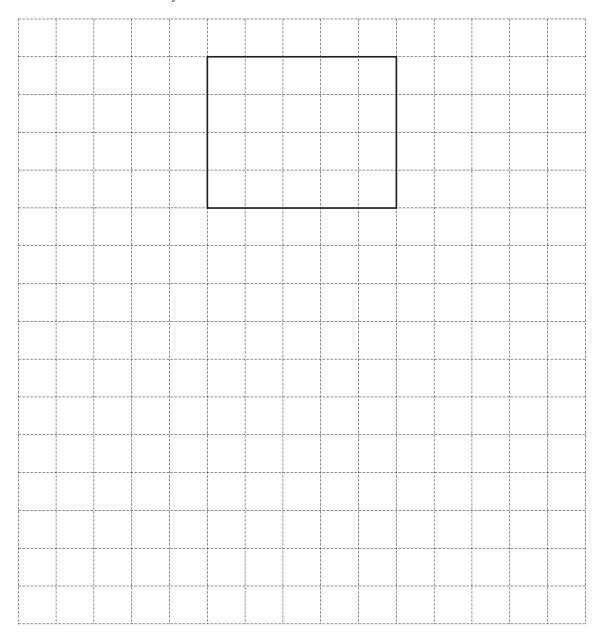
	\overline{A}	В
(a)	Measure the length of AB .	
		cm [1]
(b)	Mark the midpoint of <i>AB</i> .	[1]
(c)	Draw a line perpendicular to AB.	[1]

18 Find the size of the interior angle of a regular hexagon.

.....[3]

19 A cuboid measures 5 cm by 4 cm by 3 cm.

On the $1\,\mathrm{cm}^2$ grid, draw an accurate net of this cuboid. One face has been drawn for you.



[3]

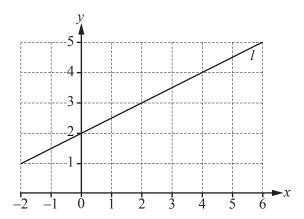
20 (a) Write $\frac{11}{3}$ as a mixed number.

|--|

(b) Without using a calculator, work out $\frac{1}{4} + \frac{5}{12}$. Show all the steps of your working and give your answer as a fraction in its lowest terms.

.....[2]

21



Find the equation of the line *l* in the form y = mx + c.

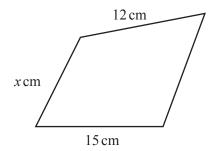
y =.....[3]

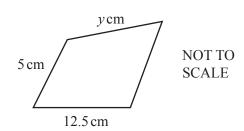
							9		
22	(a)	The	ese are the	e first four	terms of a se	quence.			
					8	15	22	29	
		(i)	Write de	own the ne	xt term.				
									[1]
		(ii)	Write do	own the ru	le for continu	uing the s	equence.		
									[1]
	(b) These are the first four terms of a different sequence.								
					2	6	10	14	
	Find an expression for the <i>n</i> th term of this sequence.								
									[2]
23	Solv	e the	e equation	ıs.					
	(a)	7 —	3n = 11n	+2					

			n =	:[2	.]
(b)	$\frac{p-3}{5} = 3$				

$$p =[2]$$

24





The two shapes are mathematically similar.

Find the value of

(a) x,

$x = \dots $	2
--------------	---

(b) *y*.

BLANK PAGE

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.