

Cambridge International Examinations

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER		CANE NUMI	DIDATE BER		



MATHEMATICS 0580/13

Paper 1 (Core) May/June 2015

1 hour

Candidates answer on the Question Paper.

Additional Materials: Electronic calculator Geometrical instruments

Tracing paper (optional)

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.

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.



1	What	is	the	value	of tl	ne	digit	7	in	43	78	32	?
---	------	----	-----	-------	-------	----	-------	---	----	----	----	----	---

		Answer [1]
2	124°/	NOT TO SCALE
	x°	SCALL
	Find the value of x .	
		<i>Answer x</i> =[1]
3	Write 0.88 as a fraction in its simplest form.	
		Answer [2]
4	Ahmed and Babar share 240 g of sweets in the ratio 7:3.	
	Calculate the amount Ahmed receives.	
		Answer g [2]
5	Factorise completely. $9x^2 - 6x$	

Answer [2]

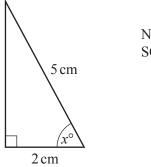
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6 The mass of a car is 1400 kg correct to the nearest hundred kilogram	ms.
--	-----

Complete the statement about the mass, *m* kilograms, of the car.

 $Answer \dots \leq m \leq \dots [2]$

7



NOT TO SCALE

Calculate the value of x.

$$Answer x =$$
 [2]

8 (a) Work out.

$$(-6) - (-8)$$

(b) Write in the missing number.

[1]

9 Use your calculator to work out

(a)
$$\sqrt{4.2^2+5.8^2}$$
,

(b) $\sqrt[3]{42.875}$.

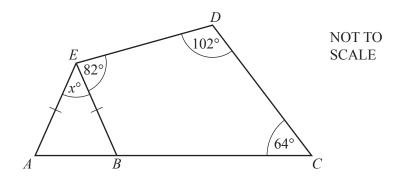
10 (a) Write 270 000 in standard form.

Angwari	(0)	Γ1	r	1
Answert	u	/		L	

(b) Work out the mean of 6.4×10^7 and 8.5×10^8 . Write your answer in standard form.

Answer(b)	 [2]
	L-

11

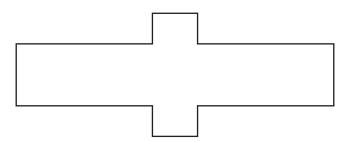


The diagram shows an isosceles triangle *ABE* and a quadrilateral *BCDE*. *ABC* is a straight line.

Calculate the value of *x*.



12



(a) On the shape, draw the lines of symmetry.

[2]

(b) Write down the order of rotational symmetry of the shape.

Answer(b) [1]

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13	James buys a drink for 2 euros (€).		
	Work out the cost of the drink in pounds (£) when £1 = $\\$ €1.25 Give your answer correct to 2 decimal places.	52 .	
		Answer £	[2]
		Answer ±	[3]
14	Without using a calculator, work out $1\frac{7}{8} \div \frac{5}{9}$.		
	Show all your working and give your answer as a fraction in	its lowest terms.	
		Answer	[3]
15	Solve the equation.		
	3(x+4) = 2(4x-1)		

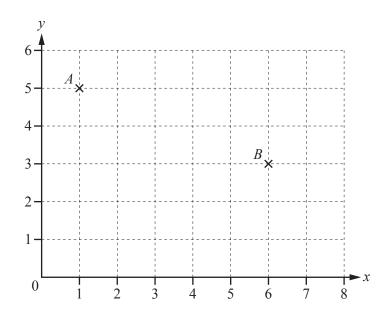
Answer x = [3]

16 In a sale, the cost of a coat is reduced from \$85 to \$67.5

Calculate the percentage reduction in the cost of the coat.

Answer % [3]

17



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

Answer(a) (....., ,, [1]

(b) Write down the vector \overrightarrow{AB} .

(c) Work out.

$$\begin{pmatrix} 4 \\ -6 \end{pmatrix} + \begin{pmatrix} 2 \\ 5 \end{pmatrix}$$

$$Answer(c) \qquad \left(\qquad \right) \qquad [1]$$

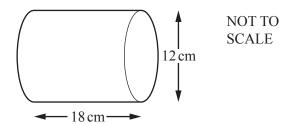
(d) Work out. $6\begin{pmatrix} -3\\ 7 \end{pmatrix}$

$$Answer(d) \qquad \left(\qquad \right) \qquad [1]$$

18	(a)	Calculate $\frac{6.4 + 7.3}{19.56 - 3.51}$.		
		Give your answer correct to 2 significant figures.		
			Answer(a)	[2]
	(b)	Write the following numbers in order of size, smallest	first.	
		57% 0.5077 0	$0.507 \frac{5}{9}$	
		<i>Answer(b)</i> < .	<	[2]
19	(a)	Write down the prime number between 62 and 70.		
			Answer(a)	[1]
	(h)	Write 54 as the product of its prime factors.		
	(8)	write a value product of the prime factors.		
			4	F2-
			Answer(b)	L ² .
	(c)	Find the highest common factor (HCF) of 54 and 90.		
			Answer(c)	[2]

Question 20 is printed on the next page.

20 (a) A cylinder has diameter 12 cm and length 18 cm.



Calculate the volume of the cylinder.

Answer(a) cm³ [2]

(b)

NOT TO SCALE

14 cm

8 cm

(i) Calculate the surface area of this cuboid.

Answer(b)(i) cm² [3]

(ii) Write your answer to part (b)(i) in square millimetres.

Answer(b)(ii) mm² [1]

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