

Cambridge Assessment International Education

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		



0580/11 **MATHEMATICS**

May/June 2019 Paper 1 (Core)

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.

This document consists of 11 printed pages and 1 blank page.



DC (NH/SW) 192562/2

1	Write $\frac{3}{4}$ as a decimal.		
2	Work out \$1.20 as a percentage of \$16.		[1]
3	Factorise $5y - 6py$.	%	[1]
J	Tactorise 3y opy.		[1]
4	A bag contains green balls and red balls only. A ball is taken at random from the bag. The probability of taking a green ball is 0.38. Write down the probability of taking (a) a red ball,		
	(b) a blue ball.		[1]
			[1]

5	(a)	On Monday the temperature at midday is $4 ^{\circ}$ C and the temperature at midnight is $-3 ^{\circ}$ C.					
		Work out the difference between these two temperatures.					
			°C [1]				
	<i>(</i> 1.)						
	(b)	On Wednesday the temperature at midday is -1 °C. By 7 pm the temperature has fallen by 4 °C.					
		Work out the temperature at 7 pm.					
			°C [1]				
			0 [1]				
6	The	volume of a cuboid is 180 cm ³ .					
v		base is a square of side length 6 cm.					
	Calc	culate the height of this cuboid.					
	Cur	contact the norghit of this edocid.					
			cm [2]				
7	Wri	te the following numbers in standard form.					
	(a)	640 000					
			[1]				
			[*]				
	(b)	0.0006					
			[1]				

8 Work out.

(a)
$$\begin{pmatrix} 4 \\ -2 \end{pmatrix} - \begin{pmatrix} 1 \\ 5 \end{pmatrix}$$



(b) $6\binom{3}{0}$



9 Asif and Ben share \$2100 in the ratio Asif: Ben = 3:7.

Work out how much Asif receives.

\$ [2]

10 The length of a truck, L metres, is 8.2 m, correct to 1 decimal place.

Complete this statement about the value of L.

..... \le L < [2]

11 Simplify.

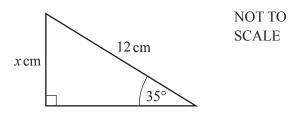
(a)	t^{21}	÷	t^7
(**)	·	•	·

.....[1]

(b) $(u^5)^5$

.....[1]

12



The diagram shows a right-angled triangle.

Calculate the value of *x*.

 $x = \dots [2]$

13

$$p = \frac{1.6 + 9.6^2}{5.9 - 4.3}$$

(a) By writing each number correct to 1 significant figure, work out an estimate for *p*. You must show all your working.

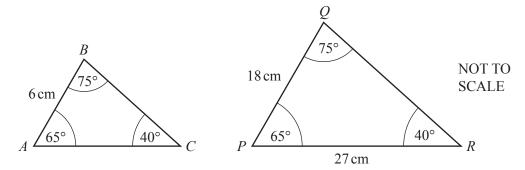
.....[2]

(b) Calculate the exact value of p.

.....[1]

14			27	28	29	30	31	32	33	
	Froi	m the list of n	umbers, w	rite down						
	(a)	a multiple of	£7,							
										F13
	<i>a</i> .)	1 1								[1]
	(b)	a cube numb	er,							
										[1]
	(c)	a prime num	ber.							
										Г13
										[1]
15	Wit	thout using a	calculato	r, work ou	$t \frac{5}{6} + \frac{2}{3}$.					
	You	ı must show al	l your wo	rking and	give your	answer as	a mixed	number	in its simplest form.	
										[3]
										[2]
16	The	ese are the first	four term	ıs of a sequ	ience.					
				5	8	11	14			
	(a)	Write down	the next te	erm.						
										[1]
	(b)	Find an expr	ession, in	terms of <i>n</i>	, for the <i>n</i>	th term.				
										[2]

17



(a)	Explain why triangle ABC and triangle PQR are similar.	
		[1]
(b)	Find AC.	

$$AC = \dots$$
 cm [2]

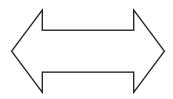
18 A car travels at a constant speed of 20 m/s.

Work out the time it takes for the car to travel 10 km. Give your answer in minutes and seconds.

..... minutes seconds [3]

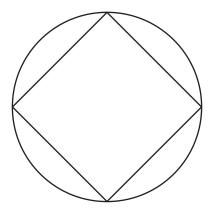
19 (a) On each shape, draw all the lines of symmetry.

(i)



[1]

(ii)



[2]

- **(b)** Write down the name of a quadrilateral that has
 - rotational symmetry of order 2

and

• exactly two lines of symmetry.

.....[1]

20	(a)	Change	3670	centimetres	to	metres
4U ((a)	Change	30/0	centimenes	ш	menes.

m	[1]
	1 - 1

(b) The scale drawing shows the positions of town S and town T. The scale is 1 centimetre represents 15 kilometres.





Scale: 1 cm to 15 km

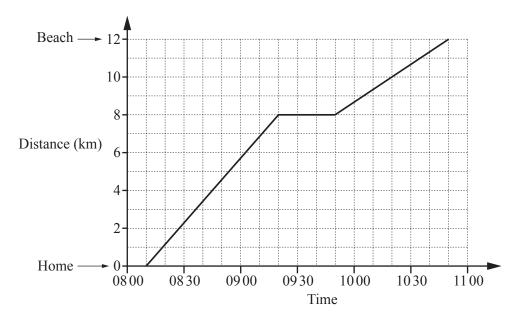
(i) Find the actual distance between these two towns.

 	km	[2]

(ii) Measure the bearing of town T from town S.



21 The travel graph shows Michael's journey from his home to the beach.



(a) At what time did he start his journey?

 [1]

(b) On the journey he stopped for a rest.

(i) Find the distance he was from home when he stopped for a rest.

1 1	4.7	
km	1	ı

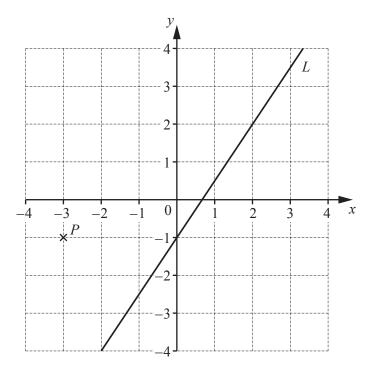
(ii) For how many minutes did he stop?

	E 4 7
min	Π
	L - 1

(c) Explain how the graph shows that Michael travelled faster before he stopped than after he stopped.

[1]

22 The diagram shows a point P and a line L.



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

() [1]
(,	 ·/ [+]

(b) Find the gradient of line L.

	[2]
•••••	

(c) Write down the equation of line L in the form y = mx + c.

$$y =$$
 [2]

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