Centre Number

Other Names

GCSE – NEW

3300U20-1



MATHEMATICS UNIT 2: CALCULATOR-ALLOWED FOUNDATION TIER

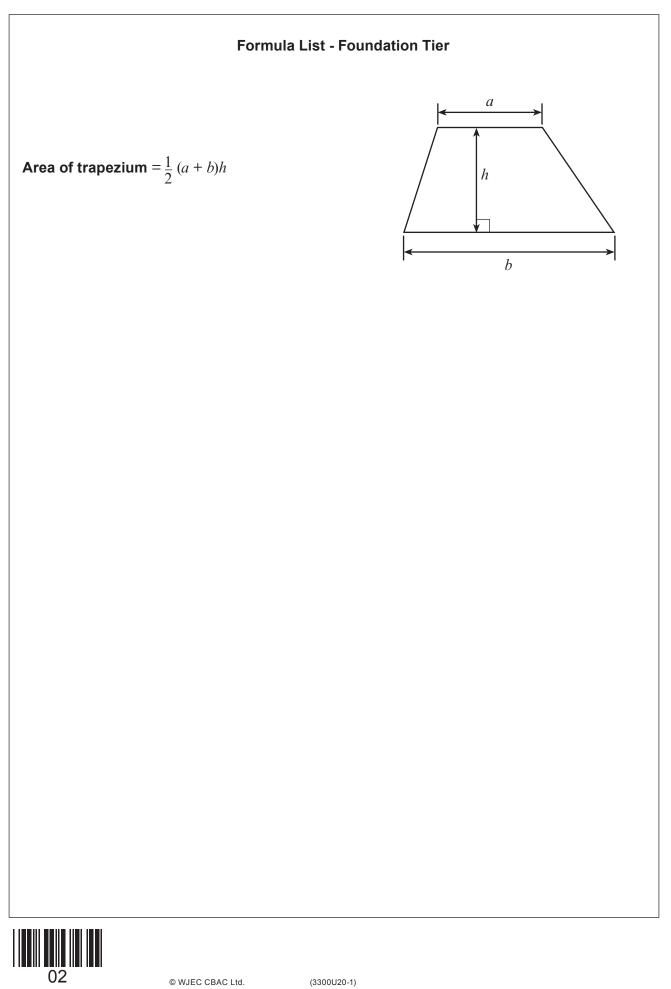
THURSDAY, 10 NOVEMBER 2016 - MORNING

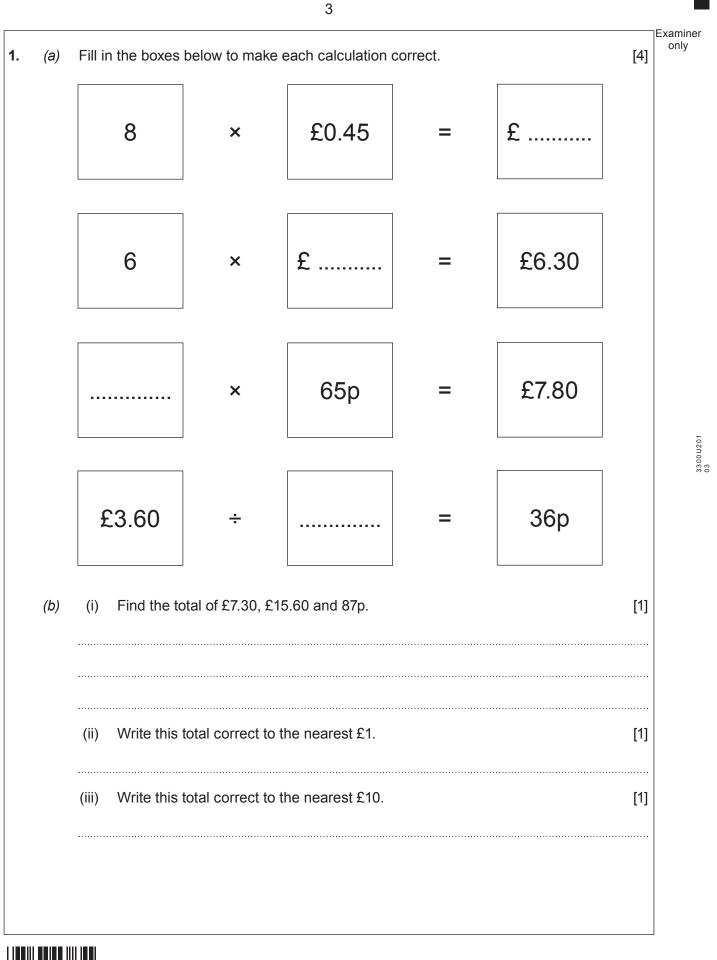
1 hour 30 minutes

For Examiner's use only **ADDITIONAL MATERIALS** Maximum Mark Question Mark Awarded A calculator will be required for this paper. 7 1. A ruler, a protractor and a pair of compasses may be required. 2. 2 **INSTRUCTIONS TO CANDIDATES** 3. 5 Use black ink or black ball-point pen. Do not use gel pen or 4. 6 correction fluid. 5. 3 You may use a pencil for graphs and diagrams only. 6. 3 Write your name, centre number and candidate number in the spaces at the top of this page. 7. 5 Answer all the questions in the spaces provided. 8. 4 If you run out of space, use the continuation page at the back of the booklet, taking care to number the question(s) 9. 2 correctly. 10. 3 Take π as 3.14 or use the π button on your calculator. 11. 3 12. 4 INFORMATION FOR CANDIDATES 13. 4 You should give details of your method of solution when appropriate. 14. 2 Unless stated, diagrams are not drawn to scale. 15. 3 Scale drawing solutions will not be acceptable where you are asked to calculate. 16. 4 The number of marks is given in brackets at the end of each 17. 5 question or part-question. Total 65 In question **3**, the assessment will take into account the

In question **3**, the assessment will take into account the quality of your linguistic and mathematical organisation, communication and accuracy in writing.









Circle either TRUE or FALSE for				[2]
STATEMEN	Т			
This shape is a pentagon.		TRUE	FALSE	
The straight line shown in this circle is a diameter.		TRUE	FALSE	
All quadrilaterals can be split in	to two triangles.	TRUE	FALSE	
	des of equal length.	TRUE	FALSE	
All isosceles triangles have 3 sinned this question, you will be associated as a couracy in writing.	essed on the quality of factors of 20.		on, communication a	nd
n this question, you will be asso ccuracy in writing. Charlotte writes down 3 different	essed on the quality of factors of 20. er than 10 but less thar ave written down?		on, communication a [3 + 2 OC\	
n this question, you will be asso ccuracy in writing. Charlotte writes down 3 different The sum of the 3 factors is great What 3 factors could Charlotte h	essed on the quality of factors of 20. er than 10 but less thar ave written down?			
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	28	17	16	12	16	26	20	23	61	
a)	Find the m	node of t	he numb	per of po	pints sco	red.				[1]
b)	Find the m	nedian ni	umber o	f points	scored.					[2]
(c)	Find the m	nean nur	nber of p	points so	cored.					[3]

5.	(a)	Circle the correct answer for the following statement. 5a + 4a - a can be simplified as	[1]
		9 $5a + 4$ $8a$ 8 $9a$	
	(b)	A linear sequence of numbers is shown below. Two of the numbers are missing.	
		19,, 7, 3	
		Fill in the missing numbers in the sequence. Write down the rule for finding the next term in the sequence.	[2]
	Rule:		

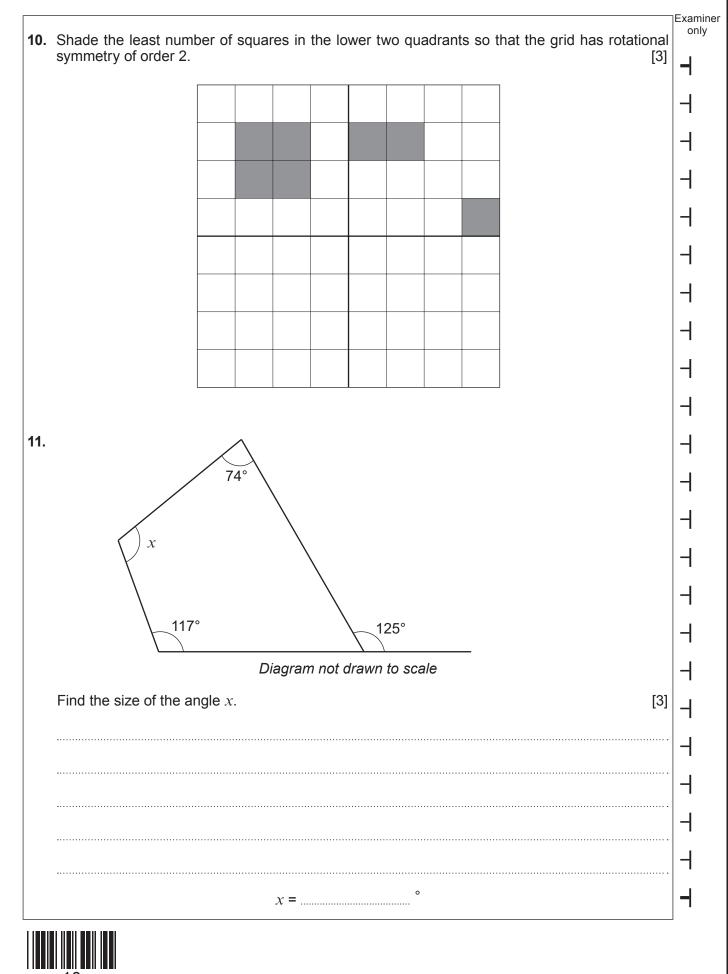


6	A givth number is	a to bo oddar	to the list h					Examiner only
6.	A sixth number is							
		12	6	15	3	5		
	When the sixth n	umber is add	ded, the rang	ge increases l	oy 2.			
	Write down the tw You must show a	wo possible v all your worki	values for th ng.	e sixth numbe	er.		[3]	
							••••••	
								3300U201 07
								33
	07	© WJEC CBAC I	Ltd.	(3300U20-1)			Turn over.	

7.	(a)	In his	eth is running a game stall at his school fete. s game, a player must flip a coin and spin a fair 4-sided spinner.	Examin only
		ıne	sections of the spinner are labelled 1, 2, 3 and 4, as shown below. $ \begin{array}{c} $	
		(i)	Write down all the possible outcomes. One has been done for you. [2] Head, 1	
		(ii)	A player wins a prize if the coin lands on tails and the spinner shows the number 4. Azi plays the game once. What is the probability that Azi wins a prize? [2]	
	(b)	"The chan	rs says: e chance of throwing a three on an ordinary 6-sided dice is higher than the ace of throwing a six, because six is the hardest number to get." erys correct?	
			ain your reasoning fully. [1]	
	08		© WJEC CBAC Ltd. (3300U20-1)	

Examiner only 8. Using only the numbers in the following list, 57 58 59 60 61 62 63 64 65 write down a prime number, [1] (a) a cube number, [1] (b) a factor of 186, (C) [1] a multiple of 7.25. (d) [1] 9. Circle the correct answer for each of the following statements. One angle in a right-angled triangle is 60°. (a) One of the other angles must be 180° 30° 120° 60° 360°. [1] (b) Huw is facing North. He turns clockwise until he is facing West. He has turned through an angle of 270° 3° 9°. 90° 0.75° [1]





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2.	(a) Solve the equation $3x - 2 = 10$.	[2]	Exam onl
	(b) A number machine is shown below.		
	INPUT ADD MULTIPLY OUTPUT		
	Calculate the OUTPUT when the INPUT is −2.	[1]	
	(c) Expand 2(x + 3).	[1]	

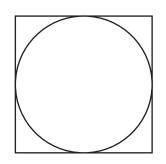


	Show clearly whether the following statement is true		new value by 10	[4] %
(If you increase a positive number by 10% and the get back to your original number.'	n decrease that	new value by 10	‰, you
•				••••••
•				••••••
•				
•				
•				
				••••••
•				••••••
	Circle either TRUE or FALSE for each statement give	n below.		[2]
		n below.		[2]
	Circle either TRUE or FALSE for each statement give STATEMENT	n below.		[2]
		n below. TRUE	FALSE	[2]
	STATEMENT		FALSE	[2]
	STATEMENT All equilateral triangles are congruent.	TRUE		[2]
-	STATEMENT All equilateral triangles are congruent. All squares with equal areas are congruent. Circles with equal perimeters are congruent.	TRUE TRUE TRUE	FALSE	[2]
	STATEMENT All equilateral triangles are congruent. All squares with equal areas are congruent.	TRUE	FALSE	[2]



Complete each row of The first row has been		[3]	Examiner only		
Place	Temperature at midday	Change	Temperature at following midday		
Holyhead	−1°C	Up 3°C	2°C		
Dolgellau	−3°C		1°C		
Cardigan	2°C	Down 3°C			
Newport		Up 2°C	-2°C		

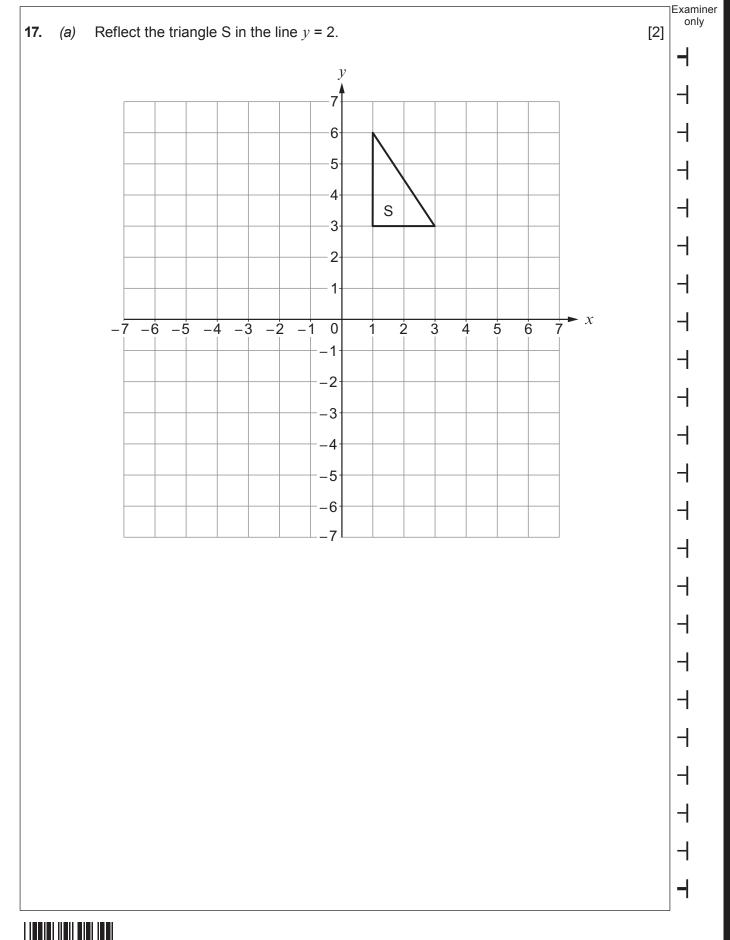
16. A square has a perimeter of 80 cm. A circle fits exactly inside the square, as shown in the diagram.



Calculate the circumference of the circle. Give your answer correct to 1 decimal place. You must show your working.

[4]

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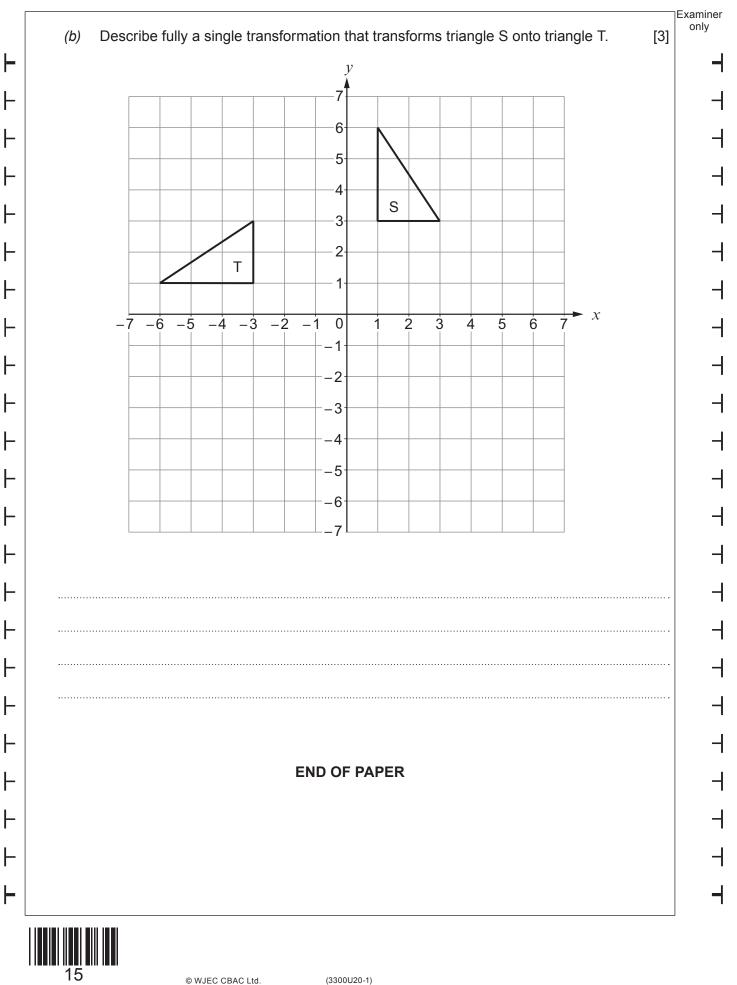
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