Collins

AQA GCSE Mathematics

SET B – Paper 2 Foundation Tier

Author: Keith Gordon

Materials

For this paper you must have:

- calculator
- mathematical instruments

Instructions

• Use black ink or black ball-point pen. Draw diagrams in pencil.

- Answer **all** questions.
- You must answer the questions in the space provided.
- In all calculations, show clearly how you work out your answer.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- You may use additional paper, graph paper and tracing paper.

Name:

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Time allowed: 1 hour 30 minutes



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	Answer all questions in the spaces provided.						
1	(a) Circle the number that is a multiple of both 5 and 8.						
						[
		13	25	40	48		
1	(b)	Circle the nu	mber that is 25%	more than 80.		14	
						[1 mark]	
		60	100	105	120		
2	Circ	cle the express	ion that represen	ts 4 less than x .			
ONLY						[1 mark]	
IOLDER		4 – <i>x</i>	$\frac{x}{4}$	<i>x</i> – 4	4 <i>x</i>		
RIGHT H 3	Circ	cle the value o	f 3 + 4 × 5²				
соруг						[1 mark]	
IGITAL		103	175	403	1225		
ц ЦО ЦЗ 4	Her	re are four nui	mbered cards.				
FOR US				5 7 6	4		
4	(a)	Write down	the biggest four-c	ligit odd number	that can be made with th	ne cards.	
						[1 mark]	
				А	nswer		
4	(b)	How many n	umbers between	4000 and 5000 c	an be made with the four	cards?	
						[2 marks]	
				А	nswer		

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5 Here are six shapes.

(b) Here is shape A.

(c) Here is shape D.





В

Ε

А

D

С

F

Write down the order of rotational symmetry of this shape.

Write down the number of lines of symmetry of this shape.

[1 mark]

Answer

[1 mark]

[1 mark]

Answer





Circle the type of angle marked.

[2 marks]



Answer £

6	(b)	Josie receive	es her change	in the least nun	nber of coins	possible.	
		Which coins	did she get?				
							[2 marks]
					Answer		
7	(a)	Round the n	umber 278	to the nearest	10.		
							[1 mark]
							[1
					Answer		
7	(b)	Round the n	umber 3850	0 to the neares	st 100.		
							[1 mark]
					Answer		
8	(a)	Write down	the rule for o	continuing this s	equence.		
							[1 mark]
		5	9	13	17	21	
		-	-				
					Answer		
8	(b)	Write down	the next terr	n in the sequend	ce in part (a)		
							[1 mark]



8

(c) Write down the next term in this sequence.

10 A running club meets on Tuesday evening.

The bar chart shows how many members came each Tuesday in January.

The information for week 4 is missing.



"On average over half of our members came each week in January".

Is she	correct	t?								-			
Tick a	box		Yes			No		Can	not t	ell			
Give re	easons	for y	our cl	noice	belov	V.							
												[4 m	narks]
On the grid	d belov	w dra	W										
a c	ircle, ra	adius	5 cm	centre	ed on	A							
a 6	cm by	8 cm	recta	angle	inside	e the o	circle						
a d	iagona	al of t	he re:	ctang	le.								
												[3 m	narks]

A

			[1 mark]
12	(b)	Solve $\frac{x}{4} = 8$	[1 mark]
13	(a)	x =	[1 mark]
13	(b)	Answer Use your calculator to work out $\sqrt{105}$ + 19.8 ²	[1 mark]
13	(c)	Answer	[2 marks]

14 A bag contains 20 counters.

8 of the counters are yellow.

5 of the counters are blue.

The rest of the counters are red.

Work out the probability that a counter taken at random from the bag is red.

[2 marks] Answer This formula is used to work out the cost of a taxi fare. Fare = f4.00 + f2.25 for each mile + f0.75 for every minute stationary (a) Jasmine takes a taxi that travels a distance of 7 miles and is stationary for 8 minutes. How much was her fare? [2 marks] Answer £ (b) Alf takes a taxi that travels a distance of 6 miles. His fare is £21.25 For how many minutes was the taxi stationary? [3 marks] Answer minutes

15



2

1

θ

-2

-3 -

-4

-5

2

1

3

4

1

-5 -4 -3 -2

х







Work out the length x in the triangle.



x = _____cm

19 The table shows the heights of some young trees.

Height, <i>h</i> cm	Frequency
140 ≤ <i>h</i> < 150	5
150 ≤ <i>h</i> < 160	9
160 ≤ <i>h</i> < 170	12
170 ≤ <i>h</i> < 180	8
180 ≤ <i>h</i> < 190	6

Work out an estimate of the mean height.

			[3 marks]
		Answer cr	n
20	(a)	As a product of prime factors $20 = 2^2 \times 5$	
		Work out 28 as a product of prime factors.	
			[2 marks]
		Answer	
20	(b)	Work out the least common multiple of 20 and 28.	
			[2 marks]
		Answer	



Answer £

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23 Two numbers are in the ratio 2 : 5

The difference between the numbers is 36.

Work out the values of the two numbers.

[3 marks] Answer and 24 The area of this semicircle is 201 cm² to 3 significant figures. Not drawn accurately Work out the perimeter of the semicircle. [3 marks]

25 Using a ruler and compasses only, construct an angle of 60° at A.

You must show your construction arcs.

[2 marks]

A_____

END OF QUESTIONS