

AQA Mock Test Papers Paper3-Test1

GCSE Mathematics

Foundation tier -- Paper3



For this paper you must have: calculator mathematical instrument



Morning

1 hour 30 minutes

Instructions

Use black ink or black ball-point pen.

Draw diagrams in pencil. Fill in the boxes at the bottom of this page. Answer all questions.

You must answer the questions in the spaces provided.

Do not write outside the box around each page or on blank pages.

Do all rough work in this book.

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 ask for more answer paper, graph paper and tracing

These must be tagged securely to this answer book.

Advice

In all Calculations, show clearly how you workout your answer

Please write cle	early, in block capitals, to allow character computer
Centre number recognition.	Candidate number
Surname	
Forename(s)	
Candidate signa	ature



Answer all questions in the spaces provided.

Which of these is a cube number? Circle your answer. 1 (a)

[1 mark]

3,

4,

9,

25, 125,

70,

81

Solve 3x = 241 (b)

[1 mark]

X=

(c) Solve y + 5 = 25

[1 mark]

y = _____

2 Here is a list of numbers.		oui
6 7 2 10 12 10 14 10		
2 (a) Write down the mode.	[1 mark]	
Answer		
2 (b) Work out the median.	[2 marks]	
Answer		
2 (c) Work out the range.	[1 mark]	
Answer		 -

Prepare 4 GC56s

3 (a) Work out the value of $2x + 8y$ when $x = 2$ and $y = -4$	[2 marks]
Answer	
3 (b) Find 75% of 86	[2 marks]
Answer	

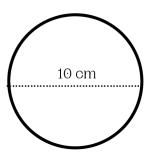
4 (a) Complete these statements with one of the following symbols $= \ge \le > <$

[3 marks]

$$(-8)^2$$
 64

4(b) Match the numbers to the correct description.

[3 marks]



Not drawn accurately

Work out the the ratio

[3 marks]

circle area: circle circumference.

Give your answer in its simplest form.

5 (b)	Simplify	$a^2x a^{-5}x a^3x b^2x b^6$	[2]	marks
			•	

Work out the perimeter of the triangle. Give your answer correct to 1 decimal place.	8 (a) Here is a right-angle 8 cm	ed triangle.	[3 marks]
Answer om			

Prepare 4 GC56s

o) Factorise fully $x^2 + 8x + 20$	[2 marks
(c) Simplify (<u>4 b c²)</u> 8 be	[2 marks
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7	
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$$A = 2^{\frac{3}{x}} 5^{\frac{2}{x}} 6$$

$$B = 4 \times 5^2 \times 6$$

7 (a) Write down the number that A represents.

[1 mark]

Answer.....

7 (b). Find the Highest Common Factor (HCF) of 2A and B.

[2 marks]

Answer.....

8 (a)	The mass of 25 cm ³ of aluminum is 67.5 gr Work out the mass of 80 cm ³ of aluminum		[2 marks]
_			
_			
_			
_			
	Answer	grams.	
8 (b)	Complete the names of these shapes.		[3 marks]
	Shape	Name	

9 (a)	In a classroom, the ratio of boys to girls is 2:6 Write the fraction of students who are girls.	[1 mark]
	Answer	_
	In the same classroom the ratio of students who prefer Maths to those who prefer French	oh is 8 : 2
9 (b)	Write the percentage of students who prefer Maths.	[1 mark]
	Answer	



10 (a)	Tom buys a laptop for £1200. He pays a deposit of £240. He pays the rest in 12 equal monthly payments. Work out the amount of each monthly payment.	
		[3 marks]
_		
_		
_		
_		
-		
10 (b)	. If y =9	[2 marks]
_		
-		
_	Answer	

A bag contains counters that are green , blue, red or yellow. 11

[4 marks]

	green	blue	red	yellow
Number of counters	6	4x	x + 3	8x

A counter is chosen at random.

The probability it is green is 100

Work out the probability it is red.

Answer

12 Here is the recipe to make 20 chocolate chips.

20 chocolate chip cookies

[3 marks]

5 eggs 200g butter 300g sugar 0.4kg chocolate chips

Work out how much of each ingredient needed to make 15 chocolate chip cookies? Give your answers in grams.

Answer			

A local sports club has 36 juniors, 54 seniors, and 210 adult members. The club decides to run a recruitment drive for new junior members. After the drive, 80 new junior members join the club. The number of senior members are now 15% of the total club membership. How many of the 80 new junior members were seniors?		
	[4 marks]	

l (a)	In 2005, the price of a movie ticket was £7.40. By 2020, it had risen to £14.15.	[3 marks]
	Work out the percentage increase in the movie ticket price.	
_		
_		
_		
_		
-		
_		
	Answer	
	Answer	
14 (b)	When x^2 = 25 the only value that it can be is 5 Is this true or false? Tick a box.	[1 mark]
	True False	
	Reason	

15 The table below shows information about the marks of 25 students in a math quiz.

Mark	Frequency (Number of Students)
12	4
13	8
14	3
15	6
16	4
	Total = 25

[3 marks]

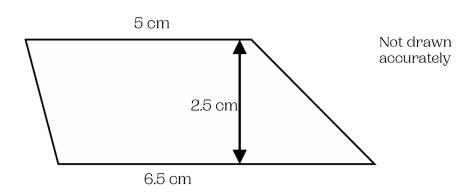
The students who scored below the average mark are required to attend extra sessions.

How many students will have to attend the extra sessions?

You must show your working.

A	
Answer	

16 Here is a trapezium



Work out the area of the trapezium.	[2 marks]
Answer	

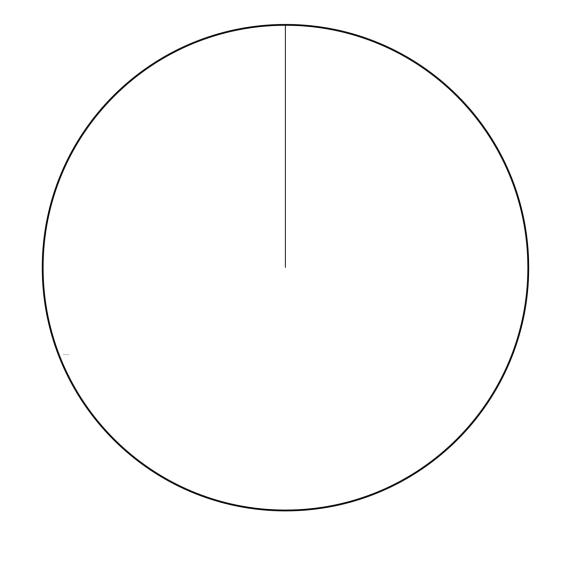
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7	Expand y (y -6)		[1 mark]
_		Answer		
	Work out the s Circle your ans	quare root of 64 n wer.	nillion.	[1 mark]
	800	8000	80000	8000000
.9	Circle the decir	nal that is closest in va		[1 mark]
	0.55	0.6	5 0.65	0.7

20 Eeshu checks the viewers of her YouTube channel and finds that the ratio of subscribers to non-subscribers is 1:4.

Draw and label a pie chart to show the subscription status of Eeshu's viewers.

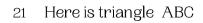
[3 marks]

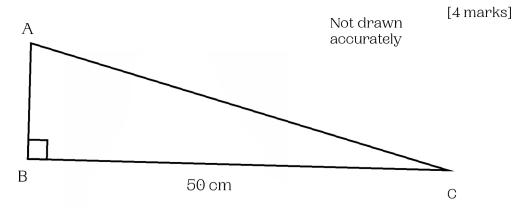


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Turn over ▶







BC: AC = 2:3

Work out the length of AB

Answer

cm

Do:	not	v	vrite
ou	tsid	e	the
	bo:	X	

22	Car A travels a distance of 60 km. The time taken for the journey is 30 minutes.	[2 marks]
22 (a)	Work out the average speed that car A travelled.	
_		
-		
_		
-		
	Answer km/h	
	Car B travels the same journey.	
22 (b)	The time taken for car B was 10 minutes faster than car A Work out the average speed that car B travelled.	. [3 marks]
, ,		
	Answer	km/h

Do not write outside the box

List all the factors of 48 [1 mar		[1 mark]
	Answer	
	_	
	END OF QUESTIONS	