# AQA

Please write clearly	in block capita	ıls.	
Centre number		Candidate numb	per
Surname			
Forename(s)			
Candidate signatur	e		)
GCSE Mathemat	ics		50
Foundation	Paper 3	Calculator	and a second sec
Summer 2018		Time allowed:	1 hour 30 minutes
Materials For this paper you must • a calculator	have:		For Examiner's Use Pages Mark

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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 spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

#### 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 paper. These must be tagged securely to the answer book.

#### Advice

• In all calculations, show clearly how you work out your answer.

For Exami	ner's Use
Pages	Mark
3	
4 - 5	
6 – 7	
8 – 9	
10 – 11	
12 – 13	
14 – 15	
16 – 17	
18 – 19	
20 – 21	
22 – 23	
TOTAL	

Teacher

Class

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# **Practice Paper Overview**

Q	Торіс	Ma	ark	Total
1	Fractions to Decimals			1
2	Indices			1
3	Units of Length 1			1
4	Negative Numbers			1
5	Probability			4
6	Coordinates			2
7	Bank Statement			4
8	Ratio and Area			3
9	Number Problem			3
10	Lines of Symmetry			1
11	Frequency Tree			5
12	Best Buy			4
13	Nets			1
14	Function Machines			4
15	Inequality on a Number Line			1
16	Venn Diagram			3
17	Sequences			3
18	Congruence			2
19	Angles on Parallel Lines			4
20	Expand and Simplify Double Brac	kets		4
21	Product of Prime Factors			3
22	Averages from a Table			6
23	Reverse Percentage 4			
24	Compound Interest 5			
25	Pythagoras' Theorem 3			
26	Right-Angled Trigonometry 2			
27	Equation of Parallel Lines			1
28	Form and Solve Equations			4
		Total		80

Answer all questions in the spaces provided	
Answer an questions in the spaces provided.	outside the box
1 Circle the decimal that has the same value as $\frac{13}{5}$ [1 mark]	
0.6 10.6 13.5 2.6 2.3	
2 Work out 64 as a power of 2.	
Circle your answer.	
$8^2$ $2^3$ $2^4$ $2^5$ $2^6$	
3 Which unit is <b>not</b> a unit of length. [1 mark]	
miles km kg m	
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4	Which statement	is <b>true</b> ?			
	Circle your answe	er			[1 marl
	-4 is gre	ater than -7	-7	is greater thar	n -4
	-4 is gre	ater than 7	-7	is greater tha	n 4
5	A tin contains four	different type	s of biscuits.		
	A biscuit is taken f	from the tin at	random.		
	The table below s	hows some of	the probabilition	es of taking ea	ach type of biscuit.
	Biscuit	Bourbon	Ginger Nut	Oreo	Digestive

5	(a)	Complete the table.
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[2 marks]

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**5 (b)** What is the probability that a bourbon or a digestive is taken from the tin?

### [2 marks]

Answer

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7 Here is a bank statement.

Date	Description	Credit £	Debit £	Balance £
3 <sup>rd</sup> June	Starting Balance			96.07
4 <sup>th</sup> June	Wage	829.34		
5 <sup>th</sup> June	Rent			465.41
6 <sup>th</sup> June	Council Tax		84.28	
7 <sup>th</sup> June	Cash paid in	36.17		
8 <sup>th</sup> June	Water Bill		28.49	388.81

Complete the bank statement.

[4 marks]

## 8 Work out



	Α				
				B	

Give your answer in its simplest form.

Answer

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[3 marks]





	9		_
12	Bottles of water are sold in packs of 8 and packs of 12.		Do not write outside the box
	BUXCON BUXCON BUXCON BUXCON BUXCON BUXCON BUXCON BUXCON BUXCON BUXCON		
	1 pack of 8 for £1.80 1 pack of 12 for £2.55		
	or or 2 packs of 8 for £3.25 2 packs of 12 for £5		
	What is the cheapest way to buy 40 bottles of water?		
	Tou must show your working.	[4 marks]	
	Answer		
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<ul><li>17 Here are the first three patterns in a sequence.</li><li>The patterns are made from triangles and pentagons.</li></ul>	Do not write outside the box
Pattern number 1 Pattern number 2 Pattern number 3	
<b>17 (a)</b> How many triangles are there in pattern number 5? [2 mark	s]
Answer	
Faith says "There are 11 triangles in pattern number 3. so there will be 33 triangles in pattern number 9."	
17 (b) Is Faith correct? Give a reason for your answer. Correct Incorrect	k]
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			1
20 (a)	Expand and simplify $(x + 2)(x - 3)$		Do not write outside the box
		[2 marks]	
-			
	Answer		
20 (b)	Factorise and solve $x^2 + 6x + 8 = 0$	[2 marks]	
_			
-			
	Answer		
<b>21</b> Ex	press 1400 as a product of its prime factors in index form.	[3 marks]	
_			
	Answer		
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The table shows some information about the heights of 120 adults.

Height (h, cm)	Number of
	adults

	adults
$150 \le h < 155$	12
$155 \le h < 160$	26
$160 \le h < 170$	31
$170 \le h < 175$	37
$175 \le h < 200$	14

**22 (a)** In which class interval is the median? Circle your answer.

 $150 \le h < 155$   $155 \le h < 160$   $160 \le h < 170$ 

 $170 \le h < 175$   $175 \le h < 200$ 

22 (b) Calculate an estimate for the mean height.

[3 marks]

	Answer	-
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22 (	<b>c)</b> Kenan says		Do not write outside the box
	"30% of the adults measured are under 160cm tall."		
	Does the data support this statement?		
	You must show your working.	[2 marks]	
	Yes No		
-			
-			
-			
00	los celle seriesture pertreite		
23	Joe sens cancature portraits.		
	He currently adds 28% profit to the cost price.		
	He sells the portraits for £256 each.		
	He wants to increase the profit to 35% of the cost price.		
	How much should he sell each picture for?	[4 marks]	
-			
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-			
	Answer		
	· ·······		
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		Do not
<b>24</b> The value of a house £V is given by		outside box
$V = 125\ 000 \times 1.004^t$		
<b>24 (a)</b> Write down the value of the house when $t = 0$	[1 mark]	
	[]	
Answer		
<b>24 (b)</b> What is the value of the house after 4 years?		
	[1 mark]	
Answer		
24 (c) After how many years will the house's value he shows \$120,000		
<b>24 (C)</b> After now many years will the house's value be above £150 000	[2 marke]	
		1
		1
Answer		
		1
		1
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box