

GCSE MATHEMATICS

AQA | Edexcel | OCR | WJEC

(Level 6 - 7)

Quadratic Sequences

Please write clearly in block capitals

Forename:	
Surname:	

Materials

For this paper you must have:

mathematical instruments



You can use a calculator.

Instructions

- · Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top 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. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper.
 These must be tagged securely to this answer book.

Advice

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

1(a) Given the sequence,

(Level 6)

3, 6, 11, 18,

what is the next term?

Circle your answer below.

[1 mark]

23

25

27

29

1(b) Consider the following quadratic sequence

$$n^2 + 4n - 7$$

What is the 5th term in the sequence?

Circle your answer below.

[1 mark]

38

18

52

12

1(c) Circle the quadratic sequence from the list of sequences below.

[1 mark]

$$7, 0, -5, -8, -9$$

1,1,2,3,5

3, 5, 7, 10

Turn over for next question

3

2	Use the following quadratic equation: $n^2 + 6n - 10$	(Level 6)
2(a)	List the first 5 terms in the sequence.	
		[2 marks]
	Answer	_
2/5)	Dogs the number 765 appear in this assurance	
2(b)	Does the number 765 appear in this sequence.	
	Show your working below.	[4 mark]
		[1 mark]
	Answer	
		_
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	GCSE Maths Revision Guide	
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	Suitable for higher and foundation tiers	

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Turn over ▶

3	Find the nth term for the following sequences,	(Level 6)
3(a)	14, 20, 28, 38, 50	[3 marks]
		[Siliaiks]
	Answer	
3(b)	0, 0, 2, 6, 12	
		[3 marks]
	Answer	
3(c)	4, 5, 8, 13, 20	
		[3 marks]
	Answer	
3(d)	100, 96, 90, 82, 72	
		[3 marks]
	Ancwor	
	Answer	
	Turn over for next question	

Turn over ▶

4	Find the nth term for the following sequences,	(Level 6)
4(a)	2, 6, 12, 20, 30	
		[3 marks]
	Answer	
4(b)	3, 10, 21, 36, 55	[3 marks]
	Answer	
4(c)	0, 5, 12, 21, 32	[3 marks]
	Answer	
4(d)	1, 9, 19, 31, 45	
		[3 marks]
	Answer	
	Turn over for next question	

Turn over ▶

5	A quadratic sequence is shown	below.
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(Level 7)

$$x$$
, $(x + y)$, $(x + y + 4)$, $(x + y + 10)$

The sequence has an nth term of $n^2 - n + 5$

Find the values of x and y.

[2 marks]

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