

# Sequences

## June 2024 Paper 3

8 Aisha was born in 1993

There was an election in the year of Aisha's 18th birthday.

There is an election every 5 years.

Will there be an election in 2030?

You must show how you get your answer.

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**(Total for Question 8 is 3 marks)**

## November 2023 Paper 3

8 Here are the first four terms of a number sequence.

97                  91                  85                  79

(a) Explain how to work out the next number of the sequence.

.....  
(1)

(b) Work out the difference between the 5th term and the 7th term of the sequence.

.....  
(2)

(c) Explain why 52 is **not** a number in this sequence.

.....  
(1)

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**(Total for Question 8 is 4 marks)**

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## June 2022 Paper 3

8 Here are the first five terms of a number sequence.

3      8      13      18      23

(a) Write down the next two terms of this sequence.

.....  
(1)

Jim says that 50 is a term in this sequence.

Jim is wrong.

(b) Explain why.

.....  
.....  
.....  
(1)

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**(Total for Question 8 is 2 marks)**

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## June 2023 Paper 2

9 Here are the first five terms of a sequence.

3      8      13      18      23

(a) Write down the next term of this sequence.

.....  
(1)

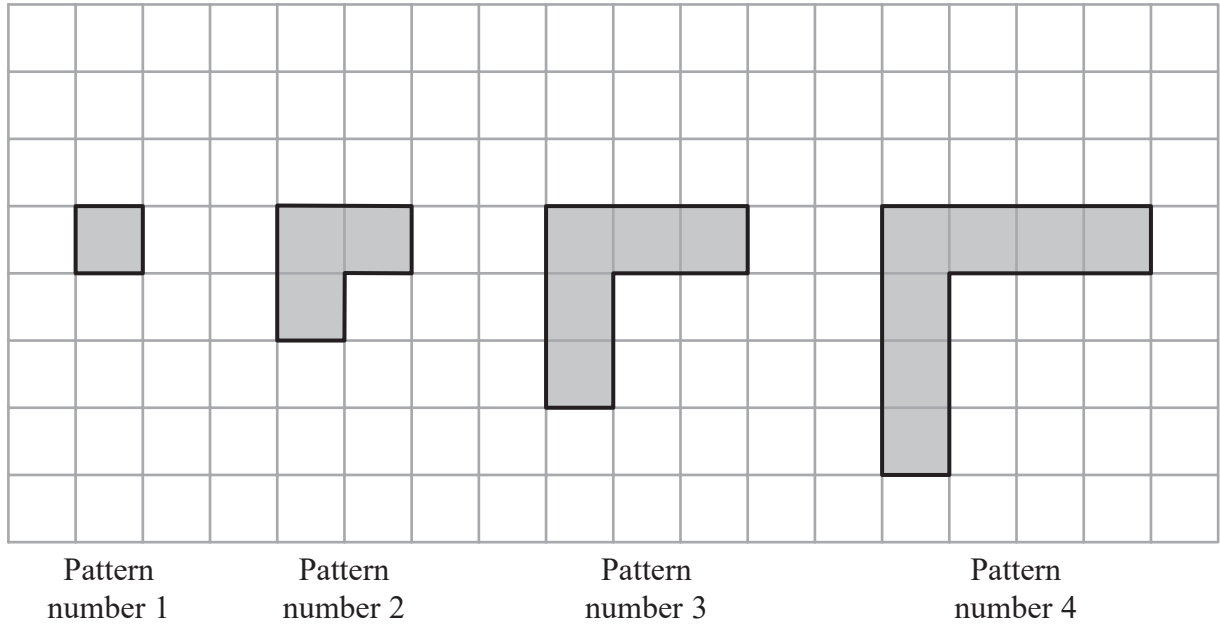
(b) Write down the ratio of the second term to the fourth term.  
Give your ratio in its simplest form.

.....  
(2)

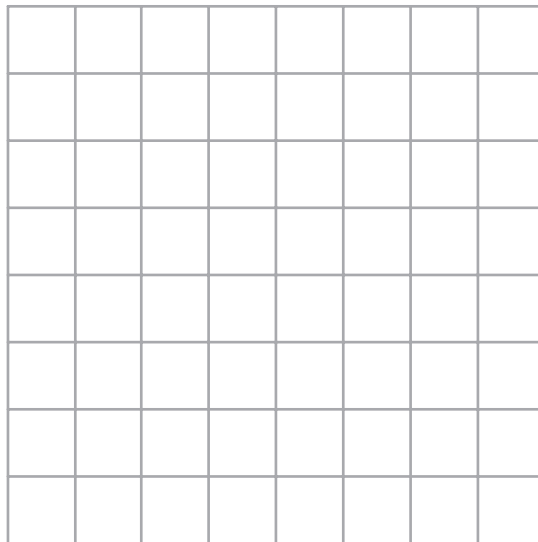
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**(Total for Question 9 is 3 marks)**

9 Here is a sequence of patterns made from grey square tiles.



(a) On the grid below, draw Pattern number 5



(1)

(b) Complete the table.

<b>Pattern number</b>	1	2	3	4	5	6
<b>Number of squares</b>	1	3	5	7		

(1)

## November 2022 Paper 3

**10** Here are the first three terms of a sequence.

20      16      13

(i) Write down two numbers that could be the 4th and 5th terms of this sequence.

....., .....

(1)

(ii) Write down the rule you used to get your numbers.

.....  
.....  
.....

(1)

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**(Total for Question 10 is 2 marks)**

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## June 2020 Paper 3

12 Here are the first five terms of a number sequence.

45      40      35      30      25

(a) (i) Write down the next two terms of this sequence.

....., .....

(1)

A term of this sequence is  $-5$

(ii) Which term?

.....

(1)

## November 2021 Paper 1

13 A number sequence starts 1 2 4

Emma says that the next term is 7

(a) Explain why Emma may be correct.

.....

.....

.....

(1)

Here are the first four terms of the sequence of triangle numbers.

1 3 6 10

(b) Find the 8th term of this sequence.

.....

(2)

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**(Total for Question 13 is 3 marks)**