ENGLAND GCSE MATHS AQA HIGHER · UNIT 6 · 25 QUESTIONS

Algebra, Sequences — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A sunflower is 12 cm tall. It grows 6 cm each week. Its height after 6 weeks is**

- A 36
- B 42
- C 48
- D 54

Understand It with Pulse | Flag a mistake

2 **A thermometer records the temperature falling by 2 degrees each hour: 22, 20, 18, 16. The next temperature is**

- A 18
- B 12
- C 14
- D 16

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3 **A honeybee visits flowers: 3, 5, 7, 9. The next number is**

- A 13
- B 15
- C 9
- D 11

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4 **Rabbits breed in pairs, and the numbers of pairs are 1, 1, 2, 3, 5, 8. The next term of the sequence is**

- A 10
- B 16
- C 11
- D 13

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5 **Nesting dolls decrease in height by 2 cm each time: 28, 26, 24, 22. The next height is**

- A 22
- B 20
- C 18
- D 24

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6 **Hardcover books are arranged in piles of 4, 8, 12, 16. The next pile has**

- A 12
- B 24
- C 16
- D 20

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7 **Eggs are packed in trays of 12, 24, 36, 48. The next tray holds**

- A 60
- B 36
- C 48
- D 72

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8 **The nth term of the sequence 2, -1, -4, -7 is**

- A -3n - 5
- B 5n - 3
- C -3n + 5
- D -2n + 5

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9 The next two terms of the sequence 8, 14, 20, 26 are

- A 38, 44
- B 32, 38
- C 38, 50
- D 26, 32

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10 The next term of the sequence 1, 4, 9, 16, 25 is

- A 32
- B 30
- C 36
- D 49

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11 The 10th term of the sequence with nth term 3n + 1 is

- A 29
- B 34
- C 31
- D 28

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12 The next term of the sequence 3, 9, 27, 81 is

- A 84
- B 364
- C 246
- D 243

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13 **The nth term of the sequence 2, 6, 12, 20 is**

- A $n^2 + 2n$
- B $2n^2 + n$
- C $n^2 + n$
- D $n^2 - n$

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14 **Is 38 a term of the sequence with nth term 3n + 2?**

- A No, it is not a term
- B Yes, it is the 12th term
- C Yes, it is the 11th term
- D Yes, it is the 13th term

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15 The nth term of the sequence 7, 9, 11, 13 is

- A 2n + 5
- B 5n + 2
- C 3n + 5
- D 2n - 5

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16 The next two terms of the sequence 7, 12, 17, 22 are

- A 32, 42
- B 32, 37
- C 27, 32
- D 22, 27

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17 **The 50th term of the sequence with nth term 3n + 3 is**

A 156

B 147

C 153

D 150

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18 **The next term of the sequence 5, 15, 45, 135 is**

A 405

B 607

C 410

D 140

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19 **The nth term of the sequence 4, 10, 18, 28 is**

- A $n^2 + 4n$
- B $2n^2 + 3n$
- C $n^2 + 3n$
- D $n^2 - 3n$

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20 **Is 46 a term of the sequence with nth term 3n + 3?**

- A Yes, it is the 15th term
- B No, it is not a term
- C Yes, it is the 14th term
- D No, it is the first term

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21 The nth term of the sequence 0, -2, -4, -6 is

- A -2n + 2
- B -2n - 2
- C -n + 2
- D 2n - 2

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22 The next two terms of the sequence 5, 9, 13, 17 are

- A 25, 33
- B 21, 25
- C 25, 29
- D 17, 21

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23 The 15th term of the sequence with nth term 4n + 4 is

- A 68
- B 64
- C 60
- D 56

Understand It with Pulse | Flag a mistake

24 The nth term of the sequence 2, 8, 18, 32 is

- A $3n^2$
- B $2n^2 + n$
- C $n^2 + n$
- D $2n^2$

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25 **Is 49 a term of the sequence with nth term 4n + 4?**

A Yes, it is the 11th term

B Yes, it is the 12th term

C No, it is not a term

D No, it is the first term

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ANSWER KEY

1.	C	**10.**	C	**19.**	C
2.	C	**11.**	C	**20.**	B
3.	D	**12.**	D	**21.**	A
4.	D	**13.**	C	**22.**	B
5.	B	**14.**	B	**23.**	B
6.	D	**15.**	A	**24.**	D
7.	A	**16.**	C	**25.**	C
8.	C	**17.**	C		
9.	B	**18.**	A		

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