

Algebra & Sequences: Medium Practice Paper

Q1. The n th term of a sequence is $6n + 3$. What is the 4th term?

- A. 21 B. 24 C. 27 D. 30 E. 33

Q2. Solve for x .

$$2x + 11 = 25$$

- A. 5 B. 6 C. 7 D. 12 E. 18

Q3. A sequence begins 9, 14, 19, 24, ... What is the 20th term?

- A. 99 B. 100 C. 104 D. 109 E. 114

Q4. If $a = 7$ and $b = 2$, what is the value of $4a - 5b$?

- A. 9 B. 13 C. 18 D. 23 E. 38

Q5. A sequence starts at 5 and the rule is "subtract 3, then double". What is the 4th term?

- A. -4 B. -2 C. 0 D. 2 E. 4

Q6. Simplify this expression.

$$7c - 2c + 5c$$

- A. $4c$ B. $10c$ C. $12c$ D. $14c$ E. $70c$

Q7. What is the missing number in this sequence?

$$-5, ?, 9, 16$$

- A. 0 B. 1 C. 2 D. 3 E. 4

Q8. Solve for n.

$$6n + 5 = 41$$

- A. 5 B. 6 C. 7 D. 8 E. 36

Q9. An apple costs a pence and a pear costs p pence. Which expression gives the cost of 3 apples and 2 pears?

- A. $3a + 2p$ B. $2a + 3p$ C. $5ap$ D. $6ap$ E. $3a - 2p$

Q10. The nth term of a sequence is $50 - 4n$. What is the 10th term?

- A. 6 B. 10 C. 14 D. 40 E. 46

Q11. What is the nth term rule for this sequence?

2, 7, 12, 17

- A. $n + 5$ B. $5n$ C. $5n - 3$ D. $3n - 1$ E. $5n + 3$

Q12. If $x = 3$, what is the value of $5x - x^2$?

- A. 3 B. 6 C. 9 D. 12 E. 15

Q13. In this sequence each term is the sum of the two before it. What comes next?

1, 1, 2, 3, 5, 8, ?

- A. 10 B. 11 C. 12 D. 13 E. 16

Q14. Solve for x.

$$(x + 4) \times 3 = 27$$

- A. 3 B. 5 C. 6 D. 9 E. 23

Q15. A number is doubled and then 7 is added. The answer is 31. What was the number?

A. 9

B. 11

C. 12

D. 14

E. 19

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