Algebra & Sequences: Medium Practice Paper 5

Q1. The nth term of a sequence is 8n + 2. What is the 6th term?

A. 42 B. 46 C. 48 D. 50 E. 52

Q2. Solve for x.

$$7x - 9 = 33$$

A. 4 B. 5 C. 6 D. 7 E. 42

Q3. A sequence begins 6, 13, 20, 27, ... What is the 11th term?

A. 69 B. 72 C. 76 D. 83 E. 90

Q4. If a = 9 and b = 4, what is the value of (a − b) × 6?

A. 24 B. 30 C. 36 D. 54 E. 78

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

A. 11 B. 17 C. 23 D. 29 E. 35

Q6. Simplify this expression.

$$10m - 4 - 6m + 9$$

A. 4m + 5 B. 4m − 5 C. 4m + 13 D. 16m + 5 E. 9m

Q7. What is the missing number in this sequence?

2, 9, ?, 23, 30

A. 13 B. 14 C. 15 D. 16 E. 17

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Q8. Solve for n.

$$3(n + 2) = 27$$

A. 5 B. 7 C. 8 D. 9 E. 25

Q9. Books cost £b each and there is a £3 delivery charge on every order. Which expression gives the cost in pounds of ordering 5 books?

A. 5b + 3 B. 5b − 3 C. b + 15 D. 8b E. 15b

Q10. The nth term of a sequence is 4n − 1. Which term is equal to 43?

A. 9th term B. 10th term C. 11th term D. 12th term E. 13th term

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

20, 17, 14, 11

A. 23 − 3n B. 20 − 3n C. 3n + 17 D. n − 3 E. 3n − 23

Q12. If x = 5, what is the value of 100 ÷ x + x?

A. 15 B. 20 C. 24 D. 25 E. 30

Q13. What is the next number in this sequence?

1, 2, 4, 7, 11, ?

A. 14 B. 15 C. 16 D. 18 E. 22

Q14. Solve for x.

$$30 - 2x = 12$$

A. 6 B. 9 C. 12 D. 15 E. 21

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Q15. A number added to 4 times itself gives 45. What is the number?

A. 5 B. 9 C. 11 D. 15 E. 41

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