

Algebra & Sequences: ₄Medium Practice Paper

Q1. The n th term of a sequence is $7n - 5$. What is the 5th term?

- A. 25 B. 28 C. 30 D. 32 E. 35

Q2. Solve for x .

$$5x + 6 = 41$$

- A. 6 B. 7 C. 8 D. 9 E. 35

Q3. A sequence begins 3, 11, 19, 27, ... What is the 15th term?

- A. 107 B. 112 C. 115 D. 120 E. 123

Q4. If $p = 8$ and $q = 3$, what is the value of $pq - 10$?

- A. 1 B. 11 C. 14 D. 17 E. 24

Q5. A sequence starts at 12 and the rule is "add 4, then halve". What is the 4th term?

- A. 4 B. 5 C. 6 D. 7 E. 8

Q6. Simplify this expression.

$$5x + 3y + 2x - y$$

- A. $7x + 2y$ B. $7x + 4y$ C. $3x + 2y$ D. $7x - 2y$ E. $9xy$

Q7. What is the missing number in this sequence?

$$38, ?, 26, 20$$

- A. 28 B. 30 C. 31 D. 32 E. 34

Q8. Solve for n .

$$9 = 4n - 3$$

- A. 2 B. 3 C. 4 D. 6 E. 12

Q9. A rectangle has a length of $(x + 5)$ cm and a width of 3 cm. Which expression gives its area in square centimetres?

- A. $3x + 15$ B. $3x + 5$ C. $x + 15$ D. $2x + 16$ E. $3x + 8$

Q10. The n th term of a sequence is $100 - 7n$. Which is the first term that is negative?

- A. 13th term B. 14th term C. 15th term D. 16th term E. 17th term

Q11. What is the n th term rule for this sequence?

11, 9, 7, 5

- A. $13 - 2n$ B. $11 - 2n$ C. $2n + 9$ D. $n - 2$ E. $2n - 13$

Q12. If $y = -2$, what is the value of $3y + 10$?

- A. -16 B. 1 C. 4 D. 8 E. 16

Q13. A pattern of dots grows like this: 4, 7, 10, 13, ... How many dots are in the 20th pattern?

- A. 58 B. 60 C. 61 D. 63 E. 64

Q14. Solve for x .

$$2(x - 3) = 14$$

- A. 4 B. 7 C. 8 D. 10 E. 11

Q15. Three times a number minus 8 equals 22. What is the number?

A. 6

B. 8

C. 10

D. 14

E. 30

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