Linear Sequences

Question 1. Write the next two terms in this sequence: $3, 6, 9, 12, \ldots$

[2 marks]

Question 2. Find the nth term of the sequence: $5, 8, 11, 14, \ldots$

[2 marks]

Question 3. Find the nth term of the sequence: $10, 7, 4, 1, \ldots$

[2 marks]

Question 4. Find the nth term of the sequence: $-2, 1, 4, 7, \ldots$

[2 marks]

Question 5. Find the nth term of the sequence: $-5, -2, 1, 4, \ldots$

[2 marks]

Question 6. The nth term of a sequence is $4n + 1$. What is the 10th term?

[2 marks]

Question 7. The nth term is $6n - 2$. Find the 5th term.

[2 marks]

Question 8. The nth term is $-3n + 20$. Find the 8th term.

[2 marks]

Question 9. Is 35 a term in the sequence with nth term $7n$? Explain your answer.

[2 marks]

Question 10. The nth term of a sequence is $3n + 4$. Is 40 in the sequence?

[2 marks]

Question 11. The nth term is $5n - 2$. Is 83 a term in the sequence?

[2 marks]

Question 12. Here is a sequence: $12, 9, 6, 3, \ldots$ Describe the rule for the sequence.

[2 marks]

Question 13. A sequence starts $-1, 3, 7, 11, \ldots$. Describe the term-to-term rule and find the nth term.

[2 marks]

Question 14. A sequence goes: $100, 90, 80, 70, \ldots$. Find the nth term.

[2 marks]

Question 15. Two sequences are: Sequence A: $3n + 2$, Sequence B: $5n - 1$. Find the first term that appears in both sequences.

[2 marks]

Question 16. The 7th term of a sequence is 25 and the 10th term is 34. Find the nth term.

[2 marks]

Question 17. A sequence increases by 5 each time. The 4th term is 22. Find the 1st term and the nth term.

[2 marks]

Question 18. Find the number of terms in the sequence $5, 10, 15, \ldots, 100$

[2 marks]

Question 19. A sequence starts $a, a+3, a+6, \ldots$. The 5th term is 26. Find the value of a.

[2 marks]

Question 20. A sequence has the form $an + b$. The first term is 8, the second term is 11. Find a formula for the nth term.

[2 marks]
