Arithmetic Sequences Practice Questions

1. Given the sequence $5, 8, 11, \ldots$ What is the next term?

2. If an arithmetic sequence starts with 2 and has a common difference of 3, what is the 3rd term?

3. The sequence $-1, 2, 5, \ldots$ is defined by which recursive formula?

4. An arithmetic sequence is defined by $a_n = a_{n-1} + 4$. If $a_5 = 33$, what is a_1?

5. The sequence starts with -4 and the 5th term is 16. What is the recursive formula for the sequence?

6. If the third term of an arithmetic sequence is 14 and the fifth term is 22, determine the recursive formula.

7. An arithmetic sequence is defined by $a_n = a_{n-1} - 6$. If $a_7 = -35$, determine a_2.

8. The 8th term of an arithmetic sequence is 50, and the 10th term is 70. Define the recursive formula for the sequence.

9. If $a_3 = 6$ and $a_5 = 18$ in an arithmetic sequence, what is the value of a_1?

10. Given the sequence $3, 5, 7, \ldots$ What is the explicit formula?

11. What is the 7th term of the sequence defined by $a_n = 2n + 1$?

12. For the sequence $a_n = 3n - 2$, determine a_5.

13. A sequence starts with 5 and has a common difference of -3. What is the explicit formula?

14. The 4th term of an arithmetic sequence is 16 and the 7th term is 28. Find the explicit formula.

15. If the explicit formula of a sequence is $a_n = -4n+10$, what is the common difference?

16. Given $a_5 = 23$ and $a_8 = 41$, determine the explicit formula of the sequence.

17. If $a_1 = 3$ and $a_10 = -57$, what is the explicit formula for the arithmetic sequence?

18. An arithmetic sequence has its 6th term as 45 and 11th term as 80. Find the explicit formula.