

11-2 Skills Practice

Arithmetic Series

Find S_n for each arithmetic series described.

1. $a_1 = 1, a_n = 19, n = 10$

2. $a_1 = -5, a_n = 13, n = 7$

3. $a_1 = 12, a_n = -23, n = 8$

4. $a_1 = 7, n = 11, a_n = 67$

5. $a_1 = 5, n = 10, a_n = 32$

6. $a_1 = -4, n = 10, a_n = -22$

7. $a_1 = -8, d = -5, n = 12$

8. $a_1 = 1, d = 3, n = 15$

9. $a_1 = 100, d = -7, a_n = 37$

10. $a_1 = -9, d = 4, a_n = 27$

11. $d = 2, n = 26, a_n = 42$

12. $d = -12, n = 11, a_n = -52$

Find the sum of each arithmetic series.

13. $1 + 4 + 7 + 10 + \dots + 43$

14. $5 + 8 + 11 + 14 + \dots + 32$

15. $3 + 5 + 7 + 9 + \dots + 19$

16. $-2 + (-5) + (-8) + \dots + (-20)$

17. $\sum_{n=1}^5 (2n - 3)$

18. $\sum_{n=1}^{18} (10 + 3n)$

19. $\sum_{n=2}^{10} (4n + 1)$

20. $\sum_{n=5}^{12} (4 - 3n)$

Find the first three terms of each arithmetic series described.

21. $a_1 = 4, a_n = 31, S_n = 175$

22. $a_1 = -3, a_n = 41, S_n = 228$

23. $n = 10, a_n = 41, S_n = 230$

24. $n = 19, a_n = 85, S_n = 760$