

Unit 1: Arithmetic Sequence and Arithmetic Series Review Sheet

Answers

1. **B** : $t_{12} = 24$

2. **D** : $d = \frac{1}{3}$

3. **D** : $d = 11$

4. **C** : $t_n = \frac{1}{4}n + \frac{1}{4}$

5. **C** : $t_6 = 3k - 2j$

6. **B** : $t_n = 8n - 5$

7. **B** : -7

8. **C** : $t_2 = 7$

9. **A** : $x = 2$

10. **C** : $n = 52$ terms

11. **B** : $s_{30} = 1590$

12. **C** : $s_{16} = -208$

13. $t_n = -8n + 17$; $t_{66} = -511$

14. $n = 20$

15. $x = 13$; $t_{10} = 352$

16. $t_{100} = 402$

17. (i) $\{1, 4, 7, 10, \dots\}$

18. $s_{40} = 4720$

(ii) $t_n = 3n - 2$

(iii) $t_{19} = 55$

(iv) $s_{30} = 1335$

19. $\{23, 28, 33, 38\}$; $s_{25} = 2075$

20. $s_{249} = 250,992$