ZERO PERIOD

Practice Paper

Class -X (Arithmetic Progression) [A]

1. Determine the AP whose 3rd term is 5 and the 7th term is 9.
2. The 8th term of an AP is 37 and its 12th term is 57. Find the AP.
3. The 7th term of an AP is – 4 and its 13th term is – 16. Find the AP.
4. If the 10th term of an AP is 52 and the 17th term is 20 more than the 13th term, find the AP.
5. If the 8th term of an AP is 31 and its 15th term is 16 more than the 11th term, find the AP.
6. Check whether 51 is a term of the AP 5, 8, 11, 14, ……?
7. The 6th term of an AP is – 10 and its 10th term is – 26. Determine the 15th term of the AP.
8. The sum of 4th term and 8th term of an AP is 24 and the sum of 6th and 10th terms is 44. Find theAP.
9. The sum of 5th term and 9th term of an AP is 72 and the sum of 7th and 12th terms is 97. Find theAP.
10. Find the 105th term of the A.P. $4, 4\frac{1}{2}, 5, 5\frac{1}{2}, 6$…….
11. Find 25th term of the AP $5, 4\frac{1}{2}, 4, 3\frac{1}{2}, 3$ ………
12. An AP consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29thterm.
13. Determine the AP whose third term is 16 and the 7th term exceeds the 5th term by 12.
14. The 17th term of an AP exceeds its 10th term by 7. Find the common difference.
15. If the nth term of an AP is (5n – 2), find its first term and common difference. Also find its19th term.
16. If the nth term of an AP is (4n – 10), find its first term and common difference. Also find its 16th term.
17. If 2x, x + 10, 3x + 2 are in A.P., find the value of x.
18. If x + 1, 3x and 4x + 2 are in AP, find the value of x.
19. Find the value of x for which (8x + 4), (6x – 2) and (2x + 7) are in AP.
20. Find the value of m so that m + 2, 4m – 6 and 3m – 2 are three consecutive terms of an AP.
21. Find the 11th term from the last term (towards the first term) of the AP : 10, 7, 4, . . ., – 62.
22. Find the 6th term from the end of the AP 17, 14, 11, …… (–40).
23. Find the 8th term from the end of the AP 7, 10, 13, …… 184.
24. Find the 31st term of an AP whose 11th term is 38 and the 16th term is 73.
25. If the 3rd and the 9th terms of an AP are 4 and –8 respectively, which term of this AP is zero?
26. For what value of n, are the nth terms of two APs: 63, 65, 67, . . . and 3, 10, 17, . . . equal?
27. For what value of n, are the nth terms of two APs: 13, 19, 25, . . . and 69, 68, 67, . . . equal?
28. If the mth term of an AP be $\frac{1}{n}$ and its nth term be $\frac{1}{m}$ then show that its (mn)th terms is 1.
29. If the pth term of an AP is q and qth term of an AP is p, prove that its nth is (p + q – n).
30. If the pth, qth and rth terms of an AP is a, b, c respectively, then show that
   a(q-r)+b(r-p)+c(p-q)=0