ICSE CLASS 10 ARITHMETIC PROGRESSION WORKSHEET

1) Find the 15th term of the A.P. with second term 11 and common difference 9.

2) How many three digit numbers are divisible by 7 ?

3) Find the sum of terms of the A.P : 4, 9, 14, ..., 89.

4) Daya gets pocket money from his father every day. Out of the pocket money, he saves Rs. 2.75 on first day, Rs.3.00 on second day, Rs 3.25 on third day and so on. Find :

(i) the amount saved by Daya on 14th day.

(ii) the amount saved by Daya on 30th day.

(iii) the total amount saved by him in 30 days.

5) If the sum of first m terms of an A.P. is n and sum of first n terms of the same A.P. is m. Show that sum of first (m + n) terms of it is – (m + n).

6) Find the 10th term of the sequence 10, 8, 6, ...

7) If the 5th and 11th terms of an A.P. are 16 and 34 respectively. Find the A.P.

8) If pth term of an A.P. is q and its qth term is p. Show that its rth term is (p+q - r).

9) If nth term of an A.P. is (2n – 1). Find its 7th term.

10) If the sum of first n terms of an A.P. is $3n^2+2n$, find its rth term.

11) For an A.P., the sum of its terms is 60, common difference is 2 and last term is 18. Find the number of terms in the A.P.

12) Find the sum of n terms of the sequence : 5 + 55 + 555 + ...

13) If a, b, c are in A.P., show that : (b + c), (c + a) and (a + b) are also in A.P.

14) Evaluate : 9 + 99 + 999 + ... upto n terms.

15) Find the sum of first 14 terms of the sequence –3, 3, 9, 15, ...

16) Find the 99th term of the series : $7\frac{3}{4}, 9\frac{1}{2}, 11\frac{1}{4}, \ldots$

17) If the sum of p terms of an A.P. is equal to sum of its q terms. Prove that the sum of (p + q) terms of it is equal to zero.

18) Find how many term of the series 17 + 15 + 13 + ... must be added to get sum equal to 72?

19) The sum of 3^{rd} and 11^{th} terms of an A.P. is 34. Find the sum of its 13 terms.

20) If the sums of p,q and r terms of an A.P. are a,b and c respectively; prove that $\frac{a}{p}(q-r) + \frac{b}{q}(r-p) + \frac{c}{r}(p-q) = 0$.