

Chapter 5 – Arithmetic Progression

MM 25

Class X

Time 1h

1 Mark Each

1. Is 68 a term of the A.P. 7, 10, 13...?
2. If difference between 20<sup>th</sup> and 15<sup>th</sup> terms of an A.P. is 45. Find the common difference.
3. Find the 9<sup>th</sup> term from the last term of AP 7, 4, 1, ..., - 59
4. Find the sum of first 16 multiples of 9.

2 Marks Each

5. Determine the 12<sup>th</sup> term from the end of the A.P. 4, 9, 14,...
6. How many 2 digit numbers are divisible by both 3 or 5
7. The sum of 7 terms A.P. is 49 and that of 17 terms is 289, find the sum of n terms.

3 Marks Each

7. A sum of Rs 5000 is invested at 10% simple interest per year. Calculate interest at end of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> years. Do they form an AP? If yes find the interest at the end of 55 years.
8. If  $a_n = 10$ ,  $S_n = 28$  and  $d = 2$ . Find n and d.
9. In a potato race bucket is placed at the starting point, which is 7m from the first potato and other potatoes are placed 5 m apart in a straight line. There are ten potatoes in the line. Find the time taken to place all the potatoes from the line in the bucket.
10. If roots of equation  $(b - c)x^2 + (c - a)x + (a - b) = 0$  are equal. Show a, b, c are in AP.
11. The sum of the third and the seventh terms of an A.P. is 6 and their product is 8. Find the sum of first sixteen terms of the A.P.

