CLASS - XI

Chapter – 9 (SEQUENCES AND SERIES)

MODULE – 3 of 3 (WORKSHEET)

Distance Learning Programme: An initiative by AEES, Mumbai

1. Write the general term of a G.P where the first term is r and the common ratio is a.
2. Which term of the G.P : 1/16, 1/8, 1/4, 1/2, ……. is 128?
3. The sequence given as 1, 2, 4, 8, 16, 32, ……..How many terms required from the beginning to make total of at least 1000?
4. Find the geometric mean of the following numbers
   a) 5 and 25
   b) 7 and 63
   c) -2 and -8
5. Insert 3 numbers between 4 and 324 such that the resulting sequence in a G.P.
6. A G.P is given 1/2, 1, 2, 4, …… If a constant k is multiplied in each term of the G.P., then find the 10th term of the G.P.
7. Find the following sums
   a) $1 + 1/2 + 1/4 + 1/8 +$ …….. upto ∞
   b) $(-4) + 8 + (-16) + 32 +$ ……. Upto 9 terms
8. Show that the Arithmetic mean is always greater than or equal to the Geometric mean of two numbers.
9. Arithmetic mean of two numbers is 10 and geometric mean is 8. Find the numbers.
10. If the 2^{nd} , 3^{rd} and 6^{th} terms of an A.P are in G.P. Find the common ratio of G.P if the first term of the A.P is 6.

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