THE VILLAGE INTERNATIONAL SCHOOL

RECAP ACTIVITY – SEQUENCES AND SERIES

1. Find the next term of the sequence 2,8,32,128,…….
2. Find the indicated terms in each of the sequences in whose nth terms are:
   (i) a_n= 4n – 3; a_{12} , a_{15}
   (ii) $a_n = \frac{n^2}{2}$; a_5 , a_7
3. Write the first five terms of each of the sequences and obtain the corresponding series:
   (i) $a_1 = 3, a_n = 3a_{n-1} + 2$ for all n> 1
   (ii) $a_1 = -1$, $a_n = \frac{a_{n-1}}{n}$, n≥ 2
4. Find the 7th term of the sequence -5,-2,1,4,……85
5. The sums of n terms of two arithmetic progressions are in the ratio 3n+8: 7n+15. Find the ratio of their 12th terms.
6. Find the sum of the following series. (a) 4 + 7 + 10 + ... to 100 terms (b) 1 + 4 3 + 5 3 + 2 + ... to 19 term
7. The third term of a G.P. is 12. Find the product of its first five terms.
8. Find the 20th and n th terms of the G.P. $\frac{5}{2}, \frac{5}{4}, \frac{5}{8}$ … … …

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10. Insert two numbers between 3 and 81 so that the resulting sequence is G.P.
11. If AM and GM of two positive numbers x and y are 13 and 12 respectively, find the numbers.
12. Find the sum of the G.P. 1,3,9,27,……to 7 terms

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