

5. ARITHMETIC PROGRESSIONS

3 MARK QUESTIONS

1. The angles of a triangle are in AP. If the greatest angle equals to the sum of the other two, then find the angles. Also, conclude that find these angles are multiple of which angle.
2. A sum of Rs. 1000 is invested at 8% simple interest per annum. Calculate the interest at the end of 1,2,3,... years. Is the sequence of interests an AP? Find the interest at the end of 30 yr.
3. If the 3rd and 9th terms of an AP are 4 and -8 respectively, then which term of this AP is zero? [3]
4. Find the common difference of an AP, whose first term is $\frac{1}{2}$ and the 8th term is $\frac{17}{6}$. Also, find the ratio of 4th term and 50th term.
5. A man is employed to count Rs.10710. He count at the rate of Rs. 180 per minute for half an hour. After this, he counts at the rate of Rs. 3 less every minute than the preceding minute. Find the time taken by him to count the entire amount.
6. If the p th , q th and r th terms of an AP are a, b and c respectively, then show that $a(q - r) + b(r - p) + c(p - q) = 0$

ANSWERS

1. 30° 2. Rs.2400 3. 5th term 4. $d = \frac{1}{3}$, 9:101 5. 89 min

6.-

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