**SAMPLE PAPER-2013**

**CLASS-X**

**Subject:-Mathematics**

*Time allowed : 3 hours Maximum Marks: 70*

1. In an A.P 6th term is half the 4th term and the 3rd term is 15. How many terms are needed to give a sum that is equal to 66?
2. Find the five numbers in A.P whose sum is 12 $\frac{1}{2}$ and the ratio of 1st to the last is 2:3.
3. Find the sum of 25th terms of an A.P in which the third term is 7 and 7th term is two more than thrice of its third term.
4. The 7th term of an A.P is 32 and the 13th term is 62. Find the A.P.
5. The sum of firstn terms of an A.P is given by $n^{2}$+8n. Find its 12th term.
6. Find the sum of n terms of the A.P.

a, a+d, a+2d,…………………………..,a+(n-1)d.

1. Find the sum of all number between 250 and 1000 which are exactly divisible by 3.
2. How many terms of the A.P -15,-13,-11, ……………. are needed to make the sum -55? Explain the reason for double answer.
3. In $s\_{n}$ the sum of first n terms of an A.P is given by $s\_{n}$=5$n^{2}$+3n, Then find its $n^{th}$ term.
4. In A.P the sum of first n terms is $\frac{3n^{2}}{2}$ +$\frac{5n}{2}$ . Find its 25th term.
5. In an A.P the first term is 2 the last term is 29 and the sum of the terms is 155. Find the common difference of the A.P.
6. In an A.P the sum of first ten terms is -150 and the sum of its next ten terms is -550. Find the A.P.
7. If there are (2n+1) terms in A.P, then prove that the ratio of the sum of odd terms and the sum of even terms is (n+1):n.
8. The sum of the first p,q,r terms of an A.P are a,b,c respectively, Show that:-
	1. $\frac{a}{p}$ (q-r)+$\frac{b}{q}$ (r-p)+ $\frac{c}{r}$ (p-q)=0
9. If $p^{th}$, $q^{th}$ and $r^{th}$ terms of an A.P are a,b,c respectively, then show that:-
	1. a (q-r)+b(r-p)+c(p-q)=0.

…………….……………………..Best of Luck……………………………………………