(X)

1. Show that $x = -3$ is a solution of $x^2 + 6x + 9 = 0$

2. Find the discriminant of the quadratic equation $3\sqrt{3}\, x^2 + 10x + \sqrt{3} = 0$

3. In a class test, the sum of the marks obtained by P in math and Science is 28. Had he got 3 marks more in math and 4 marks less in Science. The product of his marks, would have been 180. Find his marks in the two subjects. → Contact- 9990079544

4. A peacock is sitting on the top of a pillar, which is 9m heigh. From a point 27m away from the bottom of the pillar, a snake is coming to its hole at the base of the pillar. Seeing the snake the peacock poureh on it. if their speed are equal, at what distance from the whole is the snake caught?

5. A factory kept increasing its out put by the same percentage every year. Find the percentage if it is known that the out put is doubled in the last two years.

6. if the root of the equation $x^2 + 2cx + ab = 0$ are real unequal, prove that the equation $x^2 - 2(a+b)x + a^2 + b^2 + 2c^2 = 0$ has no real roots.
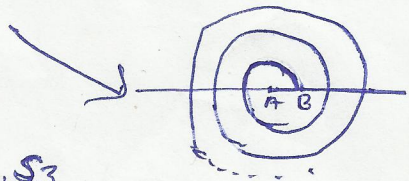
7. For what value of P are $2P+1, 13, 5P-3$ are three consecutive terms of an A.P.

8. if the sum of first p term of an A.P is $ap^2 + bp$, Find its 5th.

9. 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

10. 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 diffrence of the A.P.

11. A spiral is made up of successive semi- circle, with centre alternately at A and B starting with centre at A. of raddi. 0.5cm, 1.0cm, 1.5cm as shown in Fig what is the total length of such a spiral made up of thirteen consecutive semi- circles? Take $\pi = 22/7$

12. The sum of $n, 2n, 3n$ of an AP are S_1, S_2, S_3 respectively. Proove that
$$S_3 = 3(S_2 - S_1)$$

XxXxXxXxXxXxXx