HOME ASSIGNMENT OF SUMMER VACATIONS

CLASS:- X 'B'   SUB:- Mathematics

1) Use Euclid's division algorithm to find the H.C.F. of 196 and 38220.
2) Use Euclid's division lemma to show that cube of any positive integer is of the form 9m, 9m+1 or 9m+8.
3) Prove that $\sqrt{3}$ is an irrational number.
4) Obtain all other zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$ if two of its zeroes are $\sqrt{\frac{5}{3}}$ and $-\sqrt{\frac{5}{3}}$.
5) Half the perimeter of a rectangular garden whose length is 4m more than its width is 36 m. Find the dimensions of the garden.
6) If α and β are the zeroes of polynomial f(x) = $6x^2$ + x-2, find the value of $(\frac{\alpha}{\beta} + \frac{\beta}{\alpha})$.
7) If α and β are the zeroes of polynomial f(x) = x^2 - 5x + k such that α-β = 1 then find the value of k.
8) If the zeroes of polynomial f(x) = $x^3 - 3x^2$ + x + 1 are (a-b), a and (a+b), find a and b.
9) If α and β are the zeroes of polynomial f(x) = $5x^2$ - 7x + 1 then find the value of $(\frac{1}{\alpha} + \frac{1}{\beta})$

PROJECT WORK

Chronological development of a solution of a quadratic equation.