

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 $\alpha - \beta = 1$ 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.