

SARASWATI BAL MANDIR PASCHIM VIHAR
ASSIGNMENT
SUBJECT: MATHEMATICS
CLASS : X
SESSION:2024-25

Q1. . If the sum of zeroes of the quadratic polynomial $3x^2 - kx + 6$ is 3, then find the value of k.

Q2. 20 students of class 10 took part in the mathematics quiz. If the number of girls is 8 more than the number of boys. Find the number of girls and number of boys who took part in the quiz. Form the pair of linear equations and find their solutions graphically.

Q3. Find the solution of pair of linear equations $3x-5y=7$ and $5x+8y=-9$ using both substitution and elimination method

Q4. Prove that $\sqrt{3}$ is an irrational number.

Q5. If α and β are the zeroes of a polynomial such that $\alpha + \beta = -6$ and $\alpha\beta = 5$, then find the polynomial. Find the zeroes of $p(x) = 2x^2 - x - 6$ and verify the relationship of zeroes with its coefficients.

Q6) Find a quadratic polynomial with the numbers $-4/5$ and $-8\sqrt{7}$ as the sum and product of zeroes respectively.

Q7). Find the LCM and HCF of 96 and 404 by using prime factorisation and verify that $\text{LCM} \times \text{HCF} = \text{product of two given numbers}$.

Q8). Find the zeroes of the polynomial $x^2+7x+10$ and verify the relationship between the zeroes and the coefficients.

Q9 Prove that $-2-3\sqrt{5}$ is an irrational number if $\sqrt{5}$ is an irrational number.

Q10. Find H.C.F and L.C.M of 6, 72 and 120 using prime factorisation.

