



Laying the foundation of lifelong success

CHAPTER 2

Polynomials

(Previous Years' Questions)

2- Markers

1. Find a quadratic polynomial whose zeroes are $(5 - 2\sqrt{3})$ and $(5 + 2\sqrt{3})$. **(2026)**
2. If α, β are the zeroes of the quadratic polynomial $px^2 + qx + r$, then find the value of $\alpha^3\beta + \beta^3\alpha$. **(2026)**
3. Find the zeroes of the polynomial $p(x) = x^2 + \frac{4}{3}x - \frac{4}{3}$. **(2025)**
4. If the zeroes of the polynomial $x^2 + ax + b$ are in the ratio $3 : 4$, then prove that $12a^2 = 49b$. **(2025)**
5. If p and q are zeroes of the polynomial $p(y) = 21y^2 - y - 2$, then find the value of $(1 - p) \cdot (1 - q)$. **(2025)**
6. Find a quadratic polynomial whose zeroes are 2 and $-\frac{7}{5}$. **(2025)**
7. If ' α ' and ' β ' are the zeroes of the polynomial $p(y) = y^2 - 5y + 3$, then find the value of $\alpha^4\beta^3 + \alpha^3\beta^4$. **(2025)**

8. (a) If the sum of the zeroes of the polynomial $p(x) = (p + 1)x^2 + (2p + 3)x + (3p + 4)$ is -1 , then find the value of ' p '.

OR

- (b) If α and β are zeroes of the polynomial $p(x) = x^2 - 2x - 1$, then find the value of $\frac{1}{2\alpha} + \frac{1}{2\beta} + 3\alpha\beta$. **(2025)**
9. Solve the following system of equations algebraically :
 $30x + 44y = 10$; $40x + 55y = 13$. **(2025)**
10. α and β are zeroes of a quadratic polynomial $x^2 - ax - b$. Obtain a quadratic polynomial whose zeroes are $3\alpha + 1$ and $3\beta + 1$. **(2025)**
11. If α, β are zeroes of the polynomial $p(x) = 5x^2 - 6x + 1$, then find the value of $\alpha + \beta + \alpha\beta$. **(2024)**
12. If α and β are zeroes of the quadratic polynomial $p(x) = x^2 - 5x + 4$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta} - 2\alpha\beta$. **(2024)**

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13. If one zero of the polynomial $p(x) = 6x^2 + 37x - (k - 2)$ is reciprocal of the other, then find the value of k . (2023)



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