

REVISION SHEET CH - 02 POLYNOMIALS

Revision Sheet Ch: 02

Standard: 10th Mathematics

Q 1. If α, β are zeroes of the polynomial $2x^2 - 5x - 4$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.

Q 2. If α and β are the zeroes of the quadratic polynomial $f(x) = x^2 - x - 4$, find the value of $\frac{1}{\alpha} + \frac{1}{\beta} - \alpha\beta$.

Q 3. If α, β are zeroes of the polynomial $4x^2 + 3x + 7$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.

Q 4. If α, β are zeroes of the polynomial $-3x^2 + x - 5$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.

Q 5. If α and β are zeroes of $4x^2 - x - 4$, find quadratic polynomial whose zeroes are $\frac{1}{2\alpha}$ and $\frac{1}{2\beta}$.

Q 6. If the squared difference of the zeroes of the quadratic polynomial $f(x) = x^2 + px + 45$ is equal to 144, find the value of p .

Q 7. If α and β are zeroes of the polynomial $x^2 - p(x + 1) + c$ such that $(\alpha + 1)(\beta + 1) = 0$, then find the value of c .

Q 8. Find the value of k such that the polynomial $x^2 - (k + 6)x + 2(2k - 1)$ has sum of its zeroes equal to half of their product.

Q 9. Find a quadratic polynomial whose zeroes are reciprocals of the zeroes of the polynomial $f(x) = ax^2 + bx + c$, $a \neq 0$, $c \neq 0$.

Q 10. The quadratic polynomial, the sum of whose zeroes is -5 and their product is 6, is

(a) $x^2 + 5x + 6$

(b) $x^2 - 5x + 6$

(c) $x^2 - 5x - 6$

(d) $-x^2 + 5x + 6$

Q 11. If one of the zeroes of a quadratic polynomial $(k - 1)x^2 + kx + 1$ is -3, then the value of k is

(a) $\frac{4}{3}$

(b) $-\frac{4}{3}$

(c) $\frac{2}{3}$

(d) $-\frac{2}{3}$