

CHAPTER-2 | Polynomials

QUIZ PART-04

1. The zeroes of the polynomial $x^2 - 2x - 8$ are:
 A. 4 and - 2
 B. -4 and 2
 C. 2 and - 4
 D. 1 and - 8 (C)

Explanation: The zeroes of the polynomial are 2 and -4, verified by solving the equation.

2. For the polynomial $4s^2 - 4s + 1$, the sum of the zeroes is:
 A. 1
 B. -1
 C. -2
 D. 0 (A)

Explanation: The sum of the zeroes for a quadratic polynomial $ax^2 + bx + c$ is $-b/a$. Here, the sum is 1.

3. The polynomial $6x^2 - 3 - 7x$ has zeroes whose sum is:
 A. 7
 B. -7
 C. 0
 D. 3 (B)

Explanation: The sum of zeroes is $-(-7)/6 = -7$

4. The polynomial $4u^2 + 8u$ has zeroes whose product is:
 A. -2
 B. 2
 C. 0
 D. -1 (C)

Explanation: The product of zeroes is 0 because the constant term is 0.

5. The zeroes of the polynomial $t^2 - 15$ are:
 A. ± 5
 B. $\pm \sqrt{15}$
 C. 0 and 15
 D. 0 and -15 (B)

Explanation: The zeroes of $t^2 - 15$ are $\pm \sqrt{15}$.

6. The quadratic polynomial for zeroes $1/2$ and 3 is:
 A. $x^2 - (\text{sum})x + \text{product}$
 B. $x^2 - 5x + 3$
 C. $x^2 - 3x + 5$
 D. $x^2 - 2x + 3$ (A)

Explanation: The sum of zeroes is $1/2 + 3$, and the product is $1/2 \times 3$, giving the polynomial as $x^2 - 5x + 3$.

7. For the zeroes 0 and 5, the polynomial is:
 A. $x^2 - 5x$ B. $x^2 + 5x$
 C. $x^2 - 5x + 5$ D. $x^2 + 5x + 5$ (A)

Explanation: The polynomial with zeroes 0 and 5 is $x^2 - 5x$.

8. The sum and product of the zeroes of $x^2 - 6x + 8$ are:
 A. Sum = 6, Product = 8
 B. Sum = -6, Product = -8
 C. Sum = -6, Product = 8
 D. Sum = 6, Product = -8 (A)

Explanation: The sum is $-(-6)/1 = 6$, and the product is $8/1 = 8$.

9. The quadratic polynomial for sum 1 and product 4 is:
 A. $x^2 - x + 4$
 B. $x^2 - 5x + 4$
 C. $x^2 - 3x + 4$
 D. $x^2 - x - 4$ (A)

Explanation: The polynomial with sum 1 and product 4 is $x^2 - x + 4$

10. For the polynomial $x^2 - 3x + 2$ the zeroes are:
 A. -1 and 2
 B. 1 and -2
 C. 2 and -1
 D. 0 and 3 (C)

Explanation: The zeroes of the polynomial $x^2 - 3x + 2$ are 2 and -1.