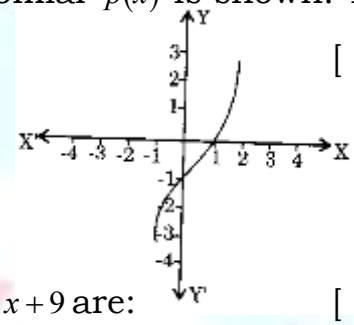
Polynomials : Worksheet -11

1. If α and β are the roots of $ax^2 - bx + c = 0\ (a \neq 0)$, then $\alpha + \beta$ is:[ ]

   [A] $\frac{b}{a}$ [B] $\frac{-b}{a}$ [C] $\frac{-c}{a}$ [D] $\frac{c}{a}$

2. In the given figure, the graph of a polynomial $p(x)$ is shown. The number of zeroes of $p(x)$ is: [ ]



   [A] 4 [B] 1

   [C] 2 [D] 3

3. The zeros of the polynomial $p(x) = 4x^2 - 12x + 9$ are: [ ]

   [A] $\frac{3}{2}, \frac{3}{2}$ [B] $-\frac{3}{2}, -\frac{3}{2}$ [C] $3, 4$ [D] $-3, -4$

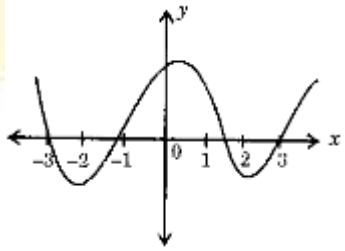
4. If the sum of the zeros of the quadratic polynomial $3x^2 - kx + 6$ is 3, then the value of k is: [ ]

   [A] 9 [B] 3 [C] -3 [D] 6

5. If -1 is a zero of the polynomial $f(x) = x^2 - 7x - 8$, then the other zero is: [ ]

   [A] 6 [B] 8 [C] -8 [D] 1

6. The number of zeroes lying between -2 and 2 of the polynomial $f(x)$ whose graph is given below is: [ ]



   [A] 2 [B] 3

   [C] 4 [D] 1

7. If one zero of the quadratic polynomial $x^2 - 5x - 6$ is 6, then the other zero is: [ ]

[A] -6 [B] -5 [C] -1 [D] 1

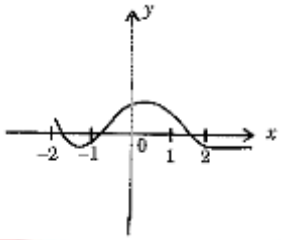
8. If both the zeroes of a quadratic polynomial $ax^2 + bx + c$ are equal and opposite in sign, then b is: [ ]

[A] 0 [B] 1 [C] -1 [D] 5

9. The quadratic polynomial whose zeroes are $\sqrt{15}$ and $-\sqrt{15}$ is: [ ]

[A] $x^2 - \sqrt{15}$ [B] $x^2 - 15$ [C] $15x^2 - 1$ [D] $x^2 - 225$

10. The number of zeroes of the polynomial function $p(x)$ are whose graph is given below is: [ ]



[A] 0 [B] 1

[C] 2 [D] 3

11. The product and sum of the zeroes of the quadratic polynomial $ax^2 + bx + c$ respectively are: [ ]

[A] $\frac{-b}{a}, \frac{c}{a}$ [B] $\frac{c}{b}, 1$ [C] $\frac{c}{a}, \frac{b}{a}$ [D] $\frac{c}{a}, \frac{-b}{a}$

12. If one of the zero of the quadratic polynomial $ax^2 + bx + c$ is 0, then the other zero is: [ ]

[A] $-\frac{b}{a}$ [B] 0 [C] 0 [D] 3

13. The number to be added to the polynomial $x^2 - 5x + 4$, so that 3 is the zero of the polynomial is: [ ]

[A] 2 [B] -2 [C] 0 [D] 3