



**ACADEMIC YEAR 2022-23**

**Grade: X**

**Subject: MATHEMATICS**

**CH – 2 POLYNOMIAL - ASSIGNMENT -2**

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1. If  $\alpha, \beta$  are the zeroes of the polynomials  $f(x) = x^2 + 5x + 8$ , then  $\alpha + \beta$   
(a) 5                      (b) -5                      (c) 8                      (d) none of these
  
2. If  $\alpha, \beta$  are the zeroes of the polynomials  $f(x) = x^2 + 5x + 8$ , then  $\alpha \cdot \beta$   
(a) 0                      (b) 1                      (c) -1                      (d) none of these
  
3. A quadratic polynomial whose zeroes are 1 and -3 is  
(a)  $x^2 - 2x - 3$       (b)  $x^2 + 2x - 3$                       (c)  $x^2 - 2x + 3$                       (d) none of the above.
  
4. A quadratic polynomial whose sum and product of zeroes are -5 and 6 is  
(a)  $x^2 - 5x - 6$       (b)  $x^2 + 5x - 6$                       (c)  $x^2 + 5x + 6$                       (d) none of the above.
  
5. The quadratic polynomial, sum and product of whose zeroes are 1 and -12 respectively is  
(a)  $x^2 - x - 12$       (b)  $x^2 + x - 12$                       (c)  $x^2 - 12x + 1$       (d)  $x^2 - 12x - 1$ .
  
6. If  $\alpha, \beta$  are the zeroes of the polynomial  $x^2 - 3x + 2$ , then find the polynomial whose zeroes are  $3\alpha$  and  $3\beta$ .
  
7. If  $\alpha, \beta$  are zeroes of polynomial  $f(x) = x^2 + px + q$  then polynomial having  $\frac{1}{\alpha}$  and  $\frac{1}{\beta}$  as its zeroes is :
  
8. Find a quadratic polynomial whose zeroes are  $3 + \sqrt{5}$  and  $3 - \sqrt{5}$ .
  
9. Find the zeroes of the polynomial  $p(x) = \sqrt{2}x^2 - 3x - 2\sqrt{2}$ .
  
10. If the zeroes of the quadratic polynomial  $x^2 + (a + 1)x + b$  are 2 and -3, then find the value of a and b.

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