



**Grade: IX CH-2- POLYNOMIALS**

1. Which of the following is not a polynomial?  
(a)  $x^2 + \sqrt{2}x + 3$       (b)  $x^2 + \sqrt{2}x + 6$       (c)  $x^3 + 3x^2 - 3$       —      (d)  $6x + 4$
2. The number of zeroes of the polynomial  $x^3 + x - 3 - 3x^2$  is  
(a) 1      (b) 2      (c) 0      (d) 3
3. If  $p(x) = 5x^2 - 3x + 7$ , then  $p(1)$  equals  
(a) -10      (b) 9      (c) -9      (d) 10
4. The degree of the polynomial  $3x^3 - x^4 + 5x + 3$  is  
(a) -4      (b) 4      (c) 1      (d) 3
5. If  $x = 2$  is a zero of the polynomial  $2x^2 + 3x - p$ , then the value of  $p$  is  
(a) -4      (b) 0      (c) 8      (d) 14
6. The remainder when  $p(x) = 2x^2 - x - 6$  is divided by  $(x - 2)$  is  
(a)  $p(-2)$       (b)  $p(2)$       (c)  $p(3)$       (d)  $p(-3)$
7. Write the coefficient of  $x^3$  in the polynomial  $7x^3 + 6x^4 - x - 1$
8. Find the zeros of the polynomials: i)  $2x^2 - 7$       ii)  $2 - 3x$
9. Find the value of the polynomial  $3x^3 - 2x^2 + 1$  when  
x = -2      ii) x = 3
10. Check whether  $2x + 1$  is a factor of  $2x^3 + 3x^2 - 11x - 6$
11. Find the value of  $a$  if  $x + 6$  is a factor of  $x^3 + 3x^2 + 4x + a$ .
12. If both  $x - 2$  and  $x - \frac{1}{2}$  are factors of  $px^2 + 5x + r$ , show that  $p = r$ .

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