EduSahara™ Assignment

Name : Zeros of a Polynomial

Chapter : Polynomials

Grade : CBSE Grade IX

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1. The value of the polynomial $(6r+9)$ at $r=4$ is

   (i) 34 (ii) 32 (iii) 33 (iv) 31 (v) 36

2. The value of the polynomial $(-7s^2+s+8)$ at $s=(-5)$ is

   (i) -174 (ii) -169 (iii) -171 (iv) -172 (v) -173

3. The value of the polynomial $(8i^3+3i+4)$ at $i=0$ is

   (i) 5 (ii) 4 (iii) 3 (iv) 1 (v) 6

4. The value of the polynomial $(-3d^4+7d^3-5d^2+9d+9)$ at $d=(-1)$ is

   (i) -12 (ii) -17 (iii) -14 (iv) -15 (v) -16

5. The value of the polynomial $(-5s)$ at $s=4, t=2, u=(-4)$ is

   (i) -23 (ii) -18 (iii) -19 (iv) -20 (v) -21

6. Find the value of k such that $kx^3 + 8x^2 - 18x - 18$ is exactly divisible by $(2x-3)$

   (i) 11 (ii) 8 (iii) 6 (iv) 7 (v) 9

7. If 4 and -2 are the zeros of the polynomial $f(x)=8x^4 - 12x^3 + ax^2 - 8x + b$, find the value of a and b

   (i) -83 , 96 (ii) -84 , 96 (iii) -84 , 97 (iv) 95 , -85 (v) 97 , -83

8. Find the value of a and b such that $bx^4 + 8x^3 - 84x^2 + ax - 20$ is exactly divisible by $(4x^2-8x-5)$

   (i) -82 , 16 (ii) -81 , 16 (iii) -82 , 17 (iv) 15 , -83 (v) 17 , -81

9. If $(\frac{-3}{2})$ is the zero of the polynomial $f(x)=4x^2 + kx - 3$, find k

   (i) 1 (ii) 6 (iii) 4 (iv) 3 (v) 5

10. If the polynomial $f(x)=kx^2 - 16x + 24$ is exactly divisible by $(x-6)$, find k

    (i) 2 (ii) 3 (iii) 1 (iv) 4 (v) -1

11. Which of the following are true?

a) Zero of a polynomial and zero polynomial are synonymous
b) A polynomial of degree n has atmost n zeros
c) A linear polynomial in one variable has only one root
d) If (x + a) is a factor of f(x), then f(a) = 0
e) Zero of a polynomial is the value of the variable for which the polynomial value is zero
f) Zero of a polynomial and root of the polynomial are synonymous
g) If (x - a) is a factor of f(x), then f(a) = 0

(i) {b,c,e,f,g} (ii) {d,c} (iii) {a,f,g} (iv) {a,d,e} (v) {a,b}

12. Given $f(m) = (2m + 9)$, find $f((-2))$

(i) 4 (ii) 7 (iii) 3 (iv) 6 (v) 5

13. Given $f(i) = (-8i^2 + 2i - 6)$, find $f(5)$

(i) -197 (ii) -195 (iii) -196 (iv) -193 (v) -198

14. Given $f(k) = (4k^3 + 8k + 1)$, find $f((-3))$

(i) -132 (ii) -134 (iii) -130 (iv) -129 (v) -131

15. Given $f(z) = (6z^4 + 9z^3 - 3z^2 + 9z - 3)$, find $f((-5))$

(i) 2505 (ii) 2500 (iii) 2502 (iv) 2501 (v) 2503

Assignment Key

1) (iii)	2) (iv)	3) (ii)	4) (iv)	5) (iv)	6) (ii)
7) (ii)	8) (i)	9) (iii)	10) (i)	11) (i)	12) (v)
13) (iii)	14) (v)	15) (iii)			

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