EduSahara™ Assignment

Name : Remainder Theorem

Chapter : Polynomials

Grade : CBSE Grade IX

1. The remainder when $(-p)$ is divided by 2 is

   (i) (-1) (ii) 3 (iii) 1 (iv) 0 (v) (-3)

2. The remainder when $3i^2$ is divided by $(i+1)$ is

   (i) 4 (ii) 5 (iii) 3 (iv) 0 (v) 2

3. The remainder when $(3f-5)$ is divided by $(f-2)$ is

   (i) 3 (ii) 0 (iii) 1 (iv) 2 (v) (-2)

4. The remainder when $(3b^2+5b)$ is divided by $(b+7)$ is

   (i) 114 (ii) 109 (iii) 111 (iv) 112 (v) 113

5. The remainder when $(-5q^2-4q+3)$ is divided by $(q+4)$ is

   (i) (-63) (ii) (-60) (iii) (-62) (iv) (-58) (v) (-61)

6. The remainder when $(-6x^4-6x^3-3x^2-3x+8)$ is divided by $(x-1)$ is

   (i) (-13) (ii) (-10) (iii) (-7) (iv) (-9) (v) (-11)

7. If $\frac{5}{2}$ and -1 are the zeros of the polynomial $f(x)=4x^4+bx^3-19x^2+23x+a$, find the value of a and b

   (i) 31 , -8 (ii) 30 , -7 (iii) -9 , 29 (iv) 30 , -8 (v) -7 , 31

8. If the polynomials $ax^2-2x-57$ and $-4x^2+ax+45$ leave the same remainder when divided by $(x+3)$, find the value of a

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

9. Which of the following are true ?

   a) If the degree of p(x) is less then the degree of d(x), we should not divide p(x) with d(x)
   b) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor
   c) If p(a) = 0, then (x + a) perfectly divides p(x)
   d) If p(x) is divided by (x - a), the remainder is p(a)

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

10. Find the remainder when $(2x^2-x-3)$ is divided by $(3x+4)$

    (i) $\frac{19}{9}$ (ii) $\frac{17}{9}$ (iii) $\frac{19}{11}$ (iv) $\frac{5}{3}$ (v) $\frac{15}{7}$

Assignment Key

1) (iv)	2) (iii)	3) (iii)	4) (iv)	5) (v)	6) (ii)
7) (iv)	8) (ii)	9) (v)	10) (ii)		