EduSahara™ Assignment

Name : Remainder Theorem

Chapter : Polynomials and Factorisation

Grade : SSC Grade IX

1. The quotient when j^2 is divided by $(j-5)$ is

   (i) $(2j+5)$ (ii) 5 (iii) $(4j+5)$ (iv) $(j+5)$ (v) $(-j+5)$

2. The quotient when $(d-4)$ is divided by $(d+6)$ is

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

3. The quotient when $(2t^2-7t-7)$ is divided by $(t+5)$ is

   (i) $(t-17)$ (ii) $(5t-17)$ (iii) $(3t-17)$ (iv) $(2t-17)$ (v) $(-t-17)$

4. The quotient when $(-3v^2+9v)$ is divided by $(v-9)$ is

   (i) $(-4v-18)$ (ii) $(-5v-18)$ (iii) $(-v-18)$ (iv) $(-2v-18)$ (v) $(-3v-18)$

5. The quotient when $(-5b^5-8b^4-5b^3+4b^2+7b+4)$ is divided by $(b+8)$ is

   (i) $(-5b^4+32b^3-261b^2+2092b-16729)$ (ii) $(-6b^4+32b^3-261b^2+2092b-16729)$

   (iii) $(-8b^4+32b^3-261b^2+2092b-16729)$ (iv) $(-4b^4+32b^3-261b^2+2092b-16729)$

   (v) $(-2b^4+32b^3-261b^2+2092b-16729)$

6. The remainder when $3q$ is divided by (-6) is

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

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

   (i) 101 (ii) 98 (iii) 99 (iv) 102 (v) 100

8. The remainder when $(8d+9)$ is divided by $(d-1)$ is

   (i) 16 (ii) 17 (iii) 20 (iv) 14 (v) 18

9. The remainder when $(-5g^2+8g)$ is divided by $(g-3)$ is

   (i) (-21) (ii) (-22) (iii) (-23) (iv) (-20) (v) (-18)

10. The remainder when $(8n^2-9n+5)$ is divided by $(n-9)$ is

    (i) 574 (ii) 571 (iii) 572 (iv) 573 (v) 570

11. Find the remainder when $(3x^2+17x+20)$ is divided by $(2x+3)$

    (i) $\frac{5}{4}$ (ii) $\frac{7}{6}$ (iii) $\frac{3}{2}$ (iv) $\frac{7}{4}$ (v) $\frac{3}{4}$

12. If $f(x)=(6x^3+17x^2-60x+25)$ and $g(x)=(2x^3+10x^2-2x-10)$ have a common factor, find the common factor

(i) $(2x-1)$ (ii) $(3x-5)$ (iii) $(x+1)$ (iv) $(x+5)$ (v) $(2x-2)$

13. If the polynomial $4x^2 + ax + b$ is divided by $(x-5)$, it leaves a remainder 168. If it is divided by $(3x+5)$, it leaves a remainder $(\frac{-8}{9})$. Find the value of a and b

(i) $7, 11$ (ii) $12, 8$ (iii) $9, 13$ (iv) $12, 9$ (v) $13, 8$

Assignment Key

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