

EduSahara™ Learning Center Assignment**Grade : Class IX, SSC****Chapter : Polynomials and Factorisation****Name : Remainder Theorem**

1. The quotient when $(-3y^2)$

is divided by $(y + 5)$ is

(i) $(-6y + 15)$ (ii) $(-4y + 15)$ (iii) $(-3y + 15)$

(iv) 15 (v) $(-2y + 15)$

2. The quotient when $(-5j + 6)$

is divided by $(j + 9)$ is

(i) (-5) (ii) (-2) (iii) (-6) (iv) (-7) (v) (-4)

3. The quotient when $(-8y^2 + 7y - 9)$

is divided by $(y + 3)$ is

(i) $(-9y + 31)$ (ii) $(-6y + 31)$ (iii) $(-11y + 31)$

(iv) $(-7y + 31)$ (v) $(-8y + 31)$

4. The quotient when $(-7b^2 - 8b)$

is divided by $(b - 8)$ is

(i) $(-8b - 64)$ (ii) $(-4b - 64)$ (iii) $(-6b - 64)$

(iv) $(-7b - 64)$ (v) $(-9b - 64)$

5. The quotient when $(-8t^5 + 4t^4 + 5t^3 + 6t^2 + 4t - 1)$

is divided by $(t - 7)$ is

(i) $(-9t^4 - 52t^3 - 359t^2 - 2507t - 17545)$

(ii) $(-7t^4 - 52t^3 - 359t^2 - 2507t - 17545)$

(iii) $(-5t^4 - 52t^3 - 359t^2 - 2507t - 17545)$

(iv) $(-8t^4 - 52t^3 - 359t^2 - 2507t - 17545)$

(v) $(-11t^4 - 52t^3 - 359t^2 - 2507t - 17545)$

6. The remainder when $(-3p)$ is divided by 2 is

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

7. The remainder when d^2 is divided by $(d - 5)$ is

(i) 26 (ii) 22 (iii) 27 (iv) 25 (v) 24

8. The remainder when $(-3d + 4)$ is divided by $(d - 5)$ is

(i) (-9) (ii) (-10) (iii) (-14) (iv) (-11) (v) (-12)

9. The remainder when $(6f^2 - 9f)$ is divided by $(f + 5)$ is

(i) 195 (ii) 196 (iii) 194 (iv) 197 (v) 193

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

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

11. Find the remainder when $(3x^2 - 31x + 36)$ is divided by $(2x + 6)$

(i) 158 (ii) 153 (iii) 155 (iv) 156 (v) 157

12. If $f(x) = (27x^3 - 72x^2 + 33x + 20)$ and $g(x) = (9x^3 - 27x^2 - x + 3)$ have a common factor, find the common factor

(i) $(3x - 4)$ (ii) $(3x - 1)$ (iii) $(3x + 1)$ (iv) $(x - 3)$ (v) $(3x - 5)$

13. If the polynomial $ax^2 + 19x + b$ is divided by $(3x - 5)$, it leaves a remainder $58\frac{1}{3}$. If it is divided by $(2x - 2)$,

it leaves a remainder 35 . Find the value of a and b

(i) 9 , 5

(ii) 7 , 10

(iii) 11 , 7

(iv) 6 , 11

(v) 6 , 10

Assignment Key

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