

# Remainder Theorem

Std = 9 Polynomials Maths

Prepared By: G. Dharshini.

## References:-

- 1) Oswaal.
- 2) NCERT Exemplar.
- 3) R. D Sharma.
- 4) NCERT Text Book.

## Questions

- 1) On dividing  $5y^3 - 2y^2 - 7y + 1$  by  $y$ , what remainder do we get?
- 2) If  $x^{11} + 101$  is divided by  $x+1$ , then what remainder do we get?
- 3) Find the remainder when  $x^3 + x^2 + x + 1$  is divided by  $x - \frac{1}{2}$ , using remainder theorem?
- 4) Find the remainder when  $x^3 + 6x - ax^2 - a$  is divided by  $x - a$ .
- 5) Find the remainder when the polynomial  $f(x) = 4x^3 - 12x^2 + 14x - 3$  is divided by  $(2x-1)$ .
- 6) Find the remainder when  $2x^3 + 3x^2 - 9x + 4$  is divided by  $2x - 1$ .
- 7) When  $x^3 + 4x^2 - 3x - 10$  is divided by  $x+1$  find the remainder by remainder theorem.
- 8) When  $3x^4 + 2x^2 - 3$  by  $x+1$  find remainder.
- 9) When  $4x^4 - 6x^3 + 6x^2 - 1$  is divided by  $2x - 3$  find the remainder.

10) When  $3x^3 - 8x^2 + 3x + 2$  by  $x^2 - 3x + 2$   
find the remainder.

11)  $x^3 - 2x^2 - 4x - 1 = P(x)$ .  
 $x+1$   $g(x)$ .

12)  $P(x) = x^3 - 3x^2 + 4x + 50$ ,  
 $g(x) = x - 3$ .

13)  $P(x) = 4x^3 - 12x^2 + 14x - 3$   
 $g(x) = 2x - 1 - 1$ .

14)  $P(x) = x^3 - 6x^2 + 2x - 4$ .  
 $g(x) = x + 2$ .

15)  $P(x) = x^4 - 4x^3 - 3x + 4$ .  
 $g(x) = x - 1$ .

16)  $P(x) = 6x^4 + 11x^3 + 13x^2 - 13x + 27$ .  
 $g(x) = 3x + 4$ .

17)  $P(x) = x^4 - 3x^2 + 2x + 5$ .  
 $g(x) = x - 1$ .

18)  $P(x) = y^3 + y^2 + 2y + 3$ .  
 $g(x) = y + 2$ .

19)  $P(x) = x^4 - 3x^2 + 2x + 1$   
 $g(x) = x - 1$

20)  $P(x) = x^3 - 6x^2 + 2x - 4$   
 $g(x) = 3x - 1$ .