



**IIT Madras**  
ONLINE DEGREE

- The degree of zero polynomial is undefined.

## The Degree of the Polynomial

- The exponent on the variable in a term is called the degree of that variable in that term.
- The degree of that term is the sum of the degrees of the variables in that term.
- The degree of the polynomial is the largest degree of any one of the terms with non-zero coefficients.

Examples:  $x = x^1$  and  $c = c.x^0$

# Classification based on the degree of the polynomial

Degree	Name	Example
0	Constant Polynomial	$c$ , 1, 5
1	Linear Polynomial	$2x+4$ , $ax+b$
2	Quadratic Polynomial	$3x^2+2$ , $4xy+2x$
3	Cubic Polynomial	$3x^3$ , $4x^2y + 2y+1$
4	Quartic Polynomial	$10x^4+y^4$ , $x^4 +10x+1$