

Linear Equations

Ex: $x^2 + y = 4$ Degree

$\underbrace{x^2}_2 + \underbrace{y}_1 + \underbrace{0}_0 \rightarrow 2$

$x^2y + xy = 4$

$\underbrace{x^2y}_4 + \underbrace{xy}_2 + \underbrace{0}_0 \rightarrow 4$

$3^x + y = 4$

$\underbrace{3^x}_{\text{undefined}} + \underbrace{y}_1 + \underbrace{0}_0 \rightarrow \text{undefined}$

$x + y + 4z = 4 \rightarrow 1$

$\underbrace{x}_1 + \underbrace{y}_1 + \underbrace{4z}_1 + \underbrace{0}_0$

Linear eq: Equations with degree 1

$\underbrace{\sqrt[3]{2x+1}}_y - 5 + 2\underbrace{\sqrt[3]{2x+1}}_y = -14$

$\sqrt[3]{2x+1} = y \quad \sqrt[3]{2x+1} = -3 \quad 2x+1 = -27 \Rightarrow x = -14$

$y - 5 + 2y = -14$

$3y = -9$

$y = -3$