

Calculus - Differential Equations

Grade 12 | Difficulty: Easy

1. Solve the first-order differential equation $dy/dx = 3x^2$.
2. Find the general solution of $dy/dx + 2y = e^x$.
3. Determine if $y = e^x + x$ is a solution to $dy/dx = y - x$.
4. Find the integrating factor of the equation $dy/dx + p(x)y = q(x)$.
5. Solve the separable differential equation $dy/dx = (x + y)$.